

AD-A125 733

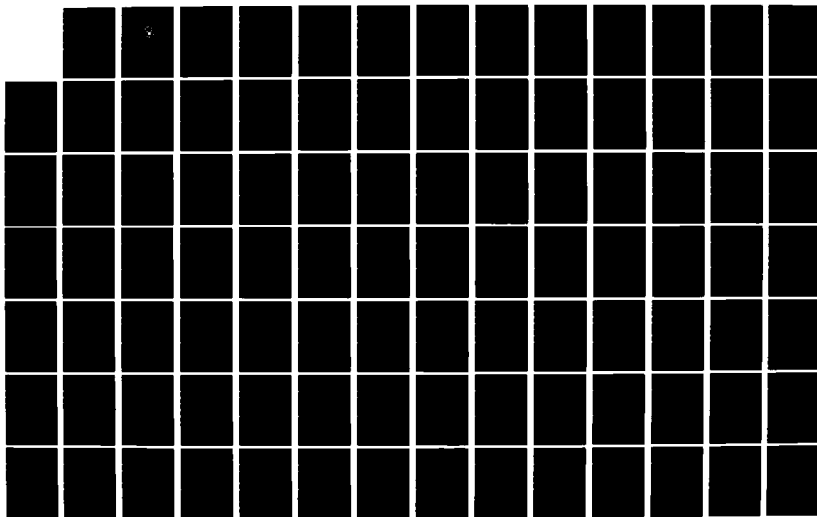
AN ANALYSIS OF THE EFFECT OF PERSONNEL TURBULENCE ON  
THE PERFORMANCE OF OPERATIONAL UNITS(U) NAVAL  
POSTGRADUATE SCHOOL MONTEREY CA W R REEVES DEC 82

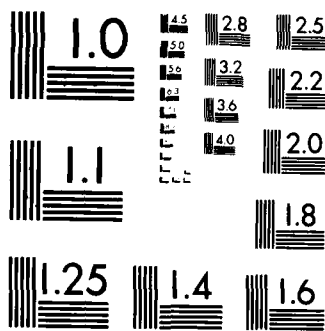
1/2

UNCLASSIFIED

F/G 5/9

NL





MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS 1963-A

2

ADA 125733

# NAVAL POSTGRADUATE SCHOOL

## Monterey, California



# THESIS

AN ANALYSIS OF THE EFFECT OF PERSONNEL  
TURBULENCE ON THE PERFORMANCE OF  
OPERATIONAL UNITS

by

Wayne Ronald Reeves

December 1982

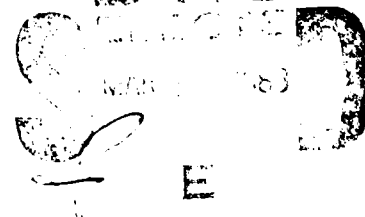
Thesis Advisor:

Richard S. Elster

Approved for Public Release; Distribution Unlimited

DTIC FILE COPY

DTIC



22 72 22 22 22

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO. AD-A125 733	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) An Analysis of the Effect of Personnel Turbulence on the Performance of Operational Units		5. TYPE OF REPORT & PERIOD COVERED Master's Thesis December, 1982
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Wayne Ronald Reeves		8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS Naval Postgraduate School Monterey, California 93940		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS Naval Postgraduate School Monterey, California 93940		12. REPORT DATE December, 1982
		13. NUMBER OF PAGES 155
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		15. SECURITY CLASS. (of this report)
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report)  Approved for Public Release; Distribution Unlimited		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)  Personnel Turnover, Personnel Turbulence, Turnover, Turbulence, Survival Tracking File, Performance Measures		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The purpose of this thesis is to analyze the effect of personnel turnover on the performance of operational Navy units. The Survival Tracking File developed by NPRDC is utilized to determine the rate of turnover aboard a sample of 40 ships. Descriptive data such as length-of-service, years of education, age, etc., are selected to provide demographic information for the people involved in the turnover. Summary CASREP maintenance data were converted to total maintenance downtime per quarter for each unit and used as the measure of ship performance. The relationship between downtime and turnover was examined at the (continued)		

Block 20 (continued) global or aggregate level and at the individual ship level. The data were unable to support any correlation between turnover and ship performance at either level. In addition no relationship was found within classes of ships when grouped by age, type, or size. Descriptive demographic statistics, relative to the personnel involved in the turnover, are provided.

Accession For		
NTIS CRA&I	<input checked="" type="checkbox"/>	
DTIC TAB	<input type="checkbox"/>	
Unannounced	<input type="checkbox"/>	
Justification		
By		
Distribution/		
Availability Codes		
Avail and/or		
Dist	Special	
A		



Approved for Public Release; Distribution Unlimited

An Analysis of the Effect of Personnel Turbulence  
on the Performance of Operational Units

by

Wayne Ronald Reeves  
Lieutenant Commander, United States Navy  
B.S., Monmouth College, 1971

Submitted in partial fulfillment of the  
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

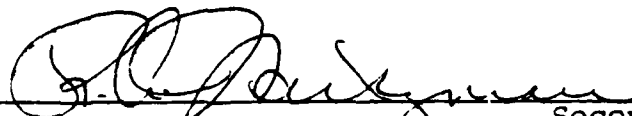
NAVAL POSTGRADUATE SCHOOL  
December 1982


Author:


  
\_\_\_\_\_

Approved by:

  
\_\_\_\_\_ Thesis Advisor

  
\_\_\_\_\_ Second Reader

  
\_\_\_\_\_ Chairman, Department of Administrative Sciences

  
\_\_\_\_\_ Dean of Information and Policy Sciences

## ABSTRACT

The purpose of this thesis is to analyze the effect of personnel turnover on the performance of operational Navy units. The Survival Tracking File developed by NPRDC is utilized to determine the rate of turnover aboard a sample of 40 ships. Descriptive data such as length-of-service, years of education, age, etc., are selected to provide demographic information for the people involved in the turnover. Summary CASREP maintenance data were converted to total maintenance downtime per quarter for each unit and used as the measure of ship performance. The relationship between downtime and turnover was examined at the global or aggregate level and at the individual ship level. The data were unable to support any correlation between turnover and ship performance at either level. In addition no relationship was found within classes of ships when grouped by age, type, or size. Descriptive demographic statistics, relative to the personnel involved in the turnover, are provided.

## TABLE OF CONTENTS

I.	INTRODUCTION -----	9
	A. PROBLEM -----	9
	B. BACKGROUND -----	10
	C. PURPOSE -----	17
II.	DATA -----	19
	A. DATA BASES -----	19
	B. DATA SELECTION: SHIP -----	21
	C. DATA SELECTION: PERSONNEL -----	21
	D. CONSTRAINTS -----	28
III.	ANALYSIS -----	29
	A. MODEL -----	29
	B. ANALYSIS -----	31
	C. SUMMARY OF DATA ANALYSIS -----	36
IV.	CONCLUSIONS -----	40
	APPENDIX A SHIP CLASS UNIT IDENTIFICATION CODE FILE ----	41
	APPENDIX B SURVIVAL TRACKING FILE -----	45
	APPENDIX C CASREP DATA -----	47
	APPENDIX D SHIPS OF THE SAMPLE -----	48
	APPENDIX E SUBFILE DATA ELEMENTS -----	50
	APPENDIX F PERSONNEL SELECTION FORTRAN PROGRAM LISTING -	52
	APPENDIX G QUARTER CONVERSION FORTRAN PROGRAM LISTING --	60
	APPENDIX H AVERAGE TURNOVER RATES -----	63
	APPENDIX I FINAL DATA SET -----	65



APPENDIX J	GRAPHS OF PERCENTAGE OF REPORTERS AND LEAVERS BY UIC -----	66
APPENDIX K	COMPARATIVE CHARACTERISTIC STATISTICS OF REPORTERS AND LEAVERS BY UIC -----	109
BIBLIOGRAPHY	-----	152
INITIAL DISTRIBUTION LIST	-----	154

## LIST OF TABLES

I	LISTING OF SIGNIFICANT LIFE CHANGE EVENTS AND THEIR MEAN WEIGHTS -----	12
II	VARIABLES EXTRACTED FROM STF -----	25
III	PEARSON CORRELATION COEFFICIENTS -----	34
IV	ANOVA RESULTS BY SHIP GROUPINGS -----	37
V	ANOVA RESULTS BY SHIP GROUPINGS (TRANSFORMED DATA) -----	37

## LIST OF FIGURES

1	Model of Relationship Between Downtime and Personnel/Equipment -----	30
2	Model of Hypothesized Functional Relationships --	30

## I. INTRODUCTION

### A. PROBLEM

The purpose of this thesis is to examine the relationship between personnel turnover/turbulence and unit performance. The emphasis is not on the cause of the turbulence/turnover, but rather the effect on the unit, and what relationships may exist between the personal characteristics of the individuals involved and the organization's productivity.

Currently, turnover/turbulence receives an enormous amount of attention by personnel of all echelons within the Navy. The individual sailor who actually bears the burden is acutely aware of the effects on him, his family and his career. It is extremely difficult for him to own a home or establish any family stability. Unit commanding officers are deeply involved in the detailing process, attempting to insure they can meet their operational missions, while getting the "right man" in the "right job." Fleet Commanders must insure that today's scarce personnel resources are effectively managed throughout their commands. Lastly, the Navy must recruit enough personnel to meet the shortfalls in endstrengths created by a decrease or growth in the number of personnel, and must demand proper management of these personnel to maintain the desired skill/age mix.

The operational unit is the key to the accomplishment of the Navy's mission. Too much personnel turnover has the potential to affect a unit's performance as experienced sailors are replaced with new personnel. The increased demand for training combined with the influx of new personnel may result in the degradation of the unit's ability to perform its mission. Just how much turnover affects a unit's performance has yet to be quantified.

This raises the issue of an adequate measure of effectiveness. Without a measure, many of today's current policies can neither be analyzed nor be effectively designed. This is an issue that must be resolved by the upper levels of Naval management. Assuming an adequate measure of operational effectiveness exists, it seems theoretically possible to use it in the analysis of the effects of personnel turnover/turbulence. From this analysis, current and/or future policy can be judged, and models generated with which a unit's "behavior" could be predicted given different personnel policies.

#### B. BACKGROUND

As a manager, every officer is faced with accomplishing assigned tasks in spite of the personnel turbulence his part of the unit experiences. For the purposes of this thesis, personnel turbulence is hypothesized to influence the performance or output of individual members of a work group

or unit. Turbulence is defined to include those factors internal and external to both the individual and the organization that affect performance. Inherent within turbulence are events such as changes in type of work, work responsibilities, living conditions, work hours and conditions and place of residence. Table I contains an expanded listing of potentially significant factors or "life changes," all of which have been shown to affect an individual's performance.

Dr. Robert Alkov, (Alkov, 1975), working for the Naval Safety Center, examined the relationships between life changes, accident behavior, and performance. The majority of accident behavior can be explained by personal stress, produced either internally or externally to the individual. Dr. Alkov examined potentially stressful life events, demonstrated by Dr. Thomas H. Holmes to be correlated with illnesses, and attempted to apply them to accident behavior. The events were ranked and arbitrarily weighted relative to the amount of adaptive or coping behavior required by an individual: the greater amount of coping behavior required, the more significant the impact on the person's performance. The rankings and weights are also shown in Table I. Dr. Alkov concluded that combinations of life change events can create enough stress so as to adversely affect an individual's performance.

Personnel turnover is the most significant factor of turbulence within a unit. Turnover is the flow of personnel into and out of an organization. Implicit in turnover is

TABLE I  
LISTING OF SIGNIFICANT LIFE CHANGE EVENTS  
AND THEIR MEAN WEIGHTS

RANK	LIFE EVENT	MEAN VALUE
1	Death of spouse	100
2	Divorce	73
3	Marital status	65
4	Jail term	63
5	Death of close family member	63
6	Personal injury or illness	53
7	Marriage	50
8	Fired at work	47
9	Marital reconciliation	45
10	Retirement	45
11	Changes in family member's health	44
12	Pregnancy	40
13	Sex difficulties	39
14	Gain of new family member	39
15	Business readjustment	39
16	Change in financial state	38
17	Death of close friend	36
18	Change to different line of work	36
19	Change in no. arguments with spouse	35
20	Mortgage over \$10,000	31
21	Foreclosure of mortgage or loan	30
22	Change in work responsibilities	29
23	Son or daughter leaving home	29
24	Trouble with in-laws	28
25	Outstanding personal achievement	28
26	Wife begins or stops work	26
27	Begin or end school	26
28	Change in living conditions	25
29	Revision of personal habits	24
30	Trouble with boss	23
31	Change in work hours, conditions	20
32	Change in residence	20
33	Change in schools	20
34	Change in recreation	19
35	Change in church activities	19
36	Change in social activities	18
37	Mortgage or loan under \$10,000	17
38	Change in sleeping habits	16
39	Change in no. of family get-togethers	15
40	Change in eating habits	15
41	Vacation	13
42	Christmas	12
43	Minor violation of the law	11

Note: The mean values are the weights of the relative amount of coping behavior required by the individual.

the creation of many of the "life changes" listed in Table I as personnel are assigned new tasks or work schedules to facilitate the arrival of new personnel and the departure of the "old salts."

As discussed above there is an empirical relationship between personnel turnover and turbulence and organizational performance or productivity. James Amendiola (1981) examined personnel turbulence relative to its effect on the management of an Army training program. Defining turbulence as job changes within the unit and then analyzing different unit history files, he was able to establish from the data a two to one ratio between turbulence and the rate of personnel turnover experienced. This ratio was shown to be positively correlated to the output (training accomplished) of the units. In another study, Victor Kendall (1978) in examining the utilization of air weapons controllers, observed that unit readiness was inversely related to the amount of personnel turbulence the unit experienced. Although recognizing the problem, he was unable to measure the relationship.

It is important to note that possibly not all aspects of personnel turbulence are negative. The very nature of the Navy's manpower system insures that there will be continual personnel movement. Yet the Navy still manages to meet its mission objectives and get the job done. Also, because of turbulence, the Navy is not a stagnant organization. It is continually exposed to new concepts associated with the



influx of new personnel and remains flexible and adaptable to the new directions these ideas foster.

Binkin and Kyriakopoulos(1979) discuss turnover in regards to military manning. They highlight the social arguments that "large personnel turnover characterizes a youthful military force." They examine the transition of the military occupational structure from low skilled mostly "physical" jobs to jobs requiring highly skilled specialists, questioning the relationship among age, experience and productivity.

"... the military's preoccupation with youthfulness at the expense of experience may not be providing the nation with the most effective armed forces possible at current budgetary levels."

The issue, therefore, is not personnel turnover/turbulence itself, but rather the effect turbulence has on the unit's ability to accomplish its mission.

Much of the literature written to date asserts that an effective unit is one that can accomplish its given mission. There are various administrative attempts to measure unit effectiveness utilized throughout the fleet, i.e., Operational Readiness Inspections (ORI); Administrative, Material and Training Inspections (ADMAT); Navy Technical Proficiency Inspections (NTPI); Propulsion Examining Board (PEB) inspections; and Command Inspections (CI), to name a few of the major ones. All of these measures, although attempting to measure specific quantifiable items, result in a rather subjective "feeling" for the unit's effectiveness or operational readiness.

Perhaps a better measure of a unit's effectiveness would be the productivity of its work force. If we had a measure of the productivity of human capital we could begin to make some estimates and decisions relative to the optimal mix of men and machines, number/types of ships, proper balance of the rates, etc.. Again, however, there exists the problem of defining unit productivity and arriving at an appropriate measurement criterion. Stanley A. Horowitz and Allan Sherman of the Center for Naval Analyses address these problems in their study "A Direct Measure of the Relationship Between Human Capital and Productivity."

Rather than use earnings as an indirect measure of productivity they examined the personal characteristics of the unit's workforce. Since the Navy is under a Congressionally mandated pay system which effectively eliminates any tangible relationship to productivity, they tried to associate "output at the work group level with the characteristics of the people in the group." They decided to utilize the Navy's maintenance casualty reporting system in selected subsystems of Navy ships and to use this as an indication of the production of output. They viewed keeping a ship in good operational condition as a production process with men as one of the inputs. The measure of downtime is the "number of casualties a ship has had multiplied by the average time it took to fix them," and the reduction of downtime implies an increase in productivity. From their analysis they concluded that the general condition of the

selected shipboard subsystems was affected by the experience and paygrade of the personnel maintaining them and the age of the equipment.

Alan Marcus (1982) repeated much of Horowitz and Sherman's work utilizing Navy aviation squadron performance as his measure of productivity. He found that crew characteristics were related to performance and utilized general production function forms to analyze the relative productivity and substitutability of personnel. The results of his efforts support the conclusions of Horowitz and Sherman that productivity is significantly affected by the experience and paygrade of the workforce.

Personnel turnover/turbulence is also a factor in the performance of civilian corporations. For the civilian manager, the issue is one of finding and keeping good personnel. The ability to set work hours, alter work conditions, set pay scales, etc., are some of the tools the organization has available to control personnel turnover. There is a considerable body of literature dealing with why personnel leave their jobs, focusing on personnel turnover as a process and attempting prediction of employee performance based on selected individual variables. Swenson (1982), discusses the different theories in light of their usefulness in analysis of the impact various recruiting sources have on the future outcomes of an individual's performance, and he observes that the models can be seen to be essentially extensions of the March and Simon 1958 ease-of-movement model. Thomas Fogec developed formulas

to predict employee performance utilizing the variables of age, length of service, education, sex, and race. He found that variables that affected the "maturing" process of the individual contributed most significantly to success on the job (Fogec, 1976).

These issues relate to attrition and retention within the military system, issues that continue to receive an enormous amount of research effort. Turnover/turbulence problems associated with retention and attrition are compounded by the sea/shore rotation policy and current retirement system. The ability/requirement to retire at 20 years of service may keep the military young and dynamic, but it also creates a large drain of experienced personnel who could still be productive. Most of the research, whether oriented to the military system or civilian organizations, has focused on the individual and the variables that affect the career decisions made. Very little research has focused on the impact on organizational productivity resulting from turnover and turbulence, nor on the demographics of the personnel involved.

#### C. PURPOSE

The objectives of this thesis are to:

1. explore any relationship that may exist between turnover and some measure of productivity, and if a relationship is found to exist, examine relationships between productivity and the personnel involved in the turnover;

2. examine the amount of turnover a unit experiences over time; and
3. examine some biographic and demographic information from those personnel involved in the turnover.

The study will examine operational Naval ships and their assigned personnel from the first quarter of fiscal year 1978 to the second quarter of fiscal year 1982. Only information relative to the flow of personnel into or out of a given unit will be analyzed with the assumption that the rate of personnel turnover is directly associated with a units internal turbulence.

## II. DATA

### A. DATA BASES

Three data bases were utilized in this effort. The first was a Ship Class Unit Identification Code File (SCUIC) initially prepared by Carl G. Carlson of the Naval Postgraduate School in 1981. The data base was constructed by Carlson to facilitate his analysis of first-term enlisted attrition from the Navy (Carlson, 1981). The data are arranged by unit identification code or UIC for each ship in the Navy. Along with the UIC, the ships are identified by hull number, name and homeport location. Additionally, data regarding type activity, ship type, class, subclass, size (based on personnel), age (relative to date of commissioning), type of engineering plant, nuclear capable status, and homeport location are included. A complete description of the data found in the ship data bank can be found in Appendix A.

The second data bank utilized was the Enlisted Survival Tracking File (STF) developed by the Navy Personnel Research and Development Center, and NMPC-164 (then Pers 35-b). The STF is a longitudinal data base of all Navy enlisted personnel since the fourth quarter of 1977. Data are extracted from the end-of-quarter Enlisted Master Record (EMR) for inclusion in the STF. The STF is a sequence of records that represent an individual's history in quarterly intervals. A complete

listing of the data elements found in the STF can be found in Appendix B.

The third data base utilized was an extract from the Consolidated Casualty Reporting System (CASREP). A statistical summary report was provided by the Navy Ships Parts Control Center (SPCC), Mechanicsburg, PA. The CASREP system is designed to provide timely reporting of equipment failures and the effect of these failures on the capability of the unit to perform its assigned missions. One of the products of the system is the computation of downtime hours. Downtime is computed for corrected casualties as follows:

Supply - the number of hours the equipment was down while awaiting parts.

Maintenance - the number of hours the equipment was was down due solely to maintenance. The assumption is that time not awaiting parts is spent on maintenance.

Total - the total number of hours the equipment was inoperative. Total downtime equals supply hours plus maintenance hours. If this total is less than twenty-four hours it is reported as 0.

The summary report number 4400.28-126 was provided for the fiscal year 1980 to second quarter 1982. A quarterly maintenance downtime data base was created by subtracting downtime awaiting parts (DWP) from total corrected downtime. A complete description of this data base can be found in Appendix C.

#### B. DATA SELECTION: SHIP

The Ship Class Unit Identification Code (SCUIC) file developed by Carlson was utilized to select ships for study in this effort. In order to gain an appreciation in specific as well as broad terms, it was decided to examine representatives from each major ship class. Additionally, it was decided to examine representative ships categorized according to their crew complement into small, medium, large, extra large, and according to their age. For a class of ship to be considered for analysis, there had to be sufficient inventory of ships in the class to have homeports on the east and west coast, as a minimum. Representative ships from each class were selected by random utilizing a random-number generator.

The ships were then categorized as discussed above, and additional ships were selected at random to represent homeports, either east or west coasts, Hawaii, or overseas, for each subcategory. This selection process resulted in 44 ships of interest, which are listed in Appendix D. These 44 ships were checked to insure that all were active during the period of this study. The UIC's of these ships were used to select individuals from the STF.

#### C. DATA SELECTION: PERSONNEL

The STF file currently consists of over eight million records, which creates a significant data processing problem. To alleviate this problem, and to subset the STF into files



that were more manageable, two Fortran programs were created. The first is based on a program developed by Carlson (1981). The purpose of the program is to determine when an individual reports to or leaves from a ship of interest, and, in order to determine turnover rates, the program selects all individuals who were attached to the ship. In cross-checking the outputs of this program, it was discovered that the STF contains a significant number of typographical errors in the current onboard UIC. The most common error found was a 9 in the first digit of the current onboard UIC. UIC's beginning with nines are allocated to miscellaneous support groups such as civilian contractors, supply processing points, etc., locations normally not manned with enlisted personnel. Further examination revealed that if a nine was found in the first digit of the UIC the last four digits usually matched the last four digits of the UIC either preceding or following it, indicating a typographical error and not a change in the UIC. Additionally, the past actual UIC field did not change appropriately, which indicates that the nine was in fact an error. Therefore, a subroutine was added to the program to eliminate this particular inconsistency.

The program operates in the following manner:

The information from the SCUIC file for the 44 ships of interest is read into a matrix called 'UIC.' The first record from the STF is read into a vector 'A' to be utilized in determining when an individual's record ends. The assumption

is made that, a change in the social security account number (SSAN) indicates the beginning of a new person's record. The record reading subroutine (RDREC) is then entered with a vector 'A' containing the first record. The subroutine reads in a record and compares the SSAN with the SSAN in vector 'A'. If they match, the record is put into a matrix 'B' which will contain all of the records for the individual. This process continues until the SSAN's don't match at which time the new SSAN and record are put into the vector 'A'. The program returns from the subroutine with the individual's entire STF file in matrix 'B', the number of records of the individual (rows of 'B'), and the first record of the next person in vector 'A'.

The next operation performed is to test the present onboard UIC's for the typographical errors discussed above. This is necessary because of the method of selection discussed below. This test only examines the UIC variable for a nine in the first digit. If a nine is located as the first digit, the last four digits are compared with those in the UIC that immediately proceeds or follows. If a match is found, the UIC with the nine is changed to match. This process is repeated for every record in matrix 'B', thereby returning a "corrected" matrix 'B' to the main program.

Matrix 'B' next enters a subroutine that creates a subfile of all personnel attached to any ship of interest. The onboard UIC of each record is compared to the UIC's of

all 44 ships. If a match is found, the information from the record, combined with the information from the ship, is merged and written in a subfile called SHIPSRTA.DATA.

Matrix 'B' is returned to the main program and is sent to the subroutine called OUTPUT. This subroutine examines the onboard UIC's contained in matrix 'B', searching for changes. Since the STF is updated on a quarterly basis and a new line is prepared when a STF variable changes, the line containing a different UIC from the preceding one must have information relative to the individual when he/she reported to the new unit. Therefore, in order to examine this information each record where a UIC changes is written into a new matrix 'C'. The search for changes continues for all records contained in matrix 'B'. After all of matrix 'B' is examined, matrix 'C' contains only those records where the UIC changed. Matrix 'C' is then compared with the ships of interest to determine whether or not any of the ships were involved. If a match is found, that record is merged with the SCUIC file and written to create a data set named REPORTED.DATA. Table II shows the variables of interest that were identified from the STF for use in this research project.

The STF is so large that many data fields are missing or contain errors. Another significant problem occurs with the past actual UIC data element. The file is constructed such that this element should reflect the last UIC the individual was attached to prior to assignment to the UIC reflected in

TABLE II  
VARIABLES EXTRACTED FROM STF

DATA ELEMENT	LENGTH
Social Security Number	9
As-of-Date Fiscal Year	2
As-of-Date Quarter	1
As-of-Date Count	2
Sex	1
Race	1
Ethnic Group	1
Date of Birth	4
Armed Forces Qualification Test	4
Education Years	2
Present Rate Code	4
Present Pay Grade	1
ADSD	4
Onboard Actual UIC	5
Past Actual UIC	5

the current actual UIC element. However, whenever the individual involved deserts or is hospitalized, the UIC elements do not keep track of all the person's movement. It is suspected that this is due to the nature of the original data source, the quarterly EMR. The changes in UIC's may be reflected in the EMR, but only the last transaction will be reflected in the quarterly report and subsequently the STF. There were enough cases where this problem occurred that the print format creating DEPARTED.DATA was modified to reflect the UIC that the individual should have left. This was possible due to the construction of matrix 'C' in the output subroutine. This matrix contains all records where a change in the UIC was found. Since the file is processed sequentially in time, the first record in matrix 'C' that matches the UIC

of ships of interest must reflect when the individual reported to the ship. Likewise, the very next record must reflect the information when the individual left the ship, regardless of what UIC is in the field. The format statement merging the STF and SCUIC files places the UIC from SCUIC in the data field of past actual UIC instead of the data from the STF. This insures that personnel data of those leaving ships can be analyzed correctly. This process is repeated for the entire STF resulting in three data sets: REPORTED.DATA, DEPARTED.DATA, and SHIPSTRA.DATA. A listing of the elements contained in these data sets is contained in Appendix E, and a program listing is provided in Appendix F.

The STF contains a significant amount of useful information. The Fortran program described above will allow the extraction of that information with a minimum of modification. The merging of selected variables with other types of data, i.e., Ship Class Unit Identification Code file, is easily handled by the formatting contained within the program. It is recommended, however, because of the large number of potential "errors" contained in the STF, that a software package that is tolerant of alphanumerics be utilized for the analysis, i.e., the Statistical Analysis System (SAS).

A second Fortran program was developed to convert the data contained in the SHIPSRTA.DATA subfile into records with discrete fiscal year and quarter information. This was necessary to enable time-line analysis of the personnel data

relative to the given ships of interest. The STF is constructed such that any change in a data element results in the addition of a new record. If no data elements change, the count variable is indexed to indicate the number of quarters for which that particular record is valid. For example, 7745, representing fiscal year 1977, fourth quarter and count equal to 5, is interpreted to mean that the data contained in that record is valid for 5 quarters, beginning at the fiscal year and quarter indicated. In this example the data are valid for 4th quarter, fiscal year 1977, and quarters 1 through 4 of fiscal year 1978. The Fortran program performs in the following manner:

A record is read, and if the variable count is equal to one, the entire record is written to the new data subfile named SHIPSRTA.QUARTER.DATA. If the count is greater than one, a loop is entered that is repeated a number of times equal to the count. While in this loop the record is converted to discrete fiscal year and quarters and written to the SHIPSRTA.QUARTER.DATA.

An individual's length of service (LOS) and age were felt to be major factors relative to the impact he/she had on the effects of personnel turbulence. The STF only contained information concerning the individual's birth data (year and month) and active duty start date (ADSD). Gardner (1980) developed the algorithm used by this program to convert birthdate and active duty start date to age and LOS in months. Appendix G contains the listing for this program.

#### D. CONSTRAINTS

The major constraint of this effort has been the STF data. Because of the size of the file, careful consideration must be given to the capabilities of the computer system used to process the data. For example, the storage required to establish an SAS system file of REPORTED.DATA and DEPARTED.DATA was in excess of 160 cylinders, where each cylinder hold 19 tracks or 3064 images. Additionally, the problems discussed above, i.e., typographical errors and omissions, limited data elements available for use as selection criteria. The data elements and codes contained in the STF are based upon standard Navy reporting systems, but many require special manipulation to be useful in this type of research.

### III. ANALYSIS

#### A. MODEL

To place the preceding discussion into a conceptual framework the relationships displayed in Figures 1 and 2 were developed.

Figure 1 displays the hypothetical relationship of downtime to personnel and equipment. Although somewhat self-evident, it is provided to support the model contained in Figure 2. Turnover, operational cycle and size are considered to be aspects of the personnel variable and ship class, size, and subclass define aspects of the equipment variable.

Figure 2 describes the hypothesized functional relationship of downtime with the unit's operational cycle (OPCYCLE), size, rate of turnover, age and class. The interaction shown between OPCYCLE and turnover is provided to indicate the relationship of turnover to the ship's operational cycle. For example, it is common practice for a ship to detach personnel with less than three months remaining until their projected rotation date (PRD), prior to deployment. Likewise there is a concurrent influx of personnel to fill the billets created by these early detachments. It could be argued that turnover could be used as a surrogate indicator of the ship's operational cycle; however, its usefulness is marginal. The intensity of operations, i.e., mission performed, hours underway,



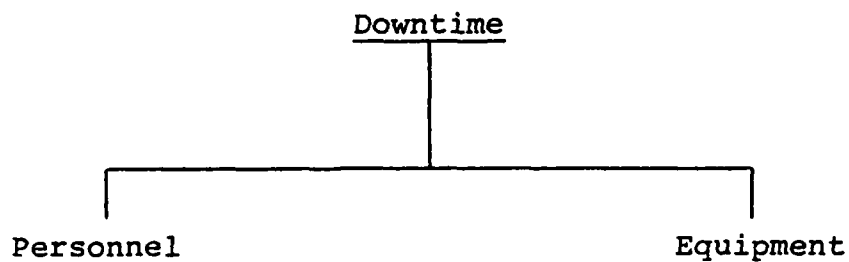


Figure 1. Model of Relationship Between Downtime and Personnel/Equipment

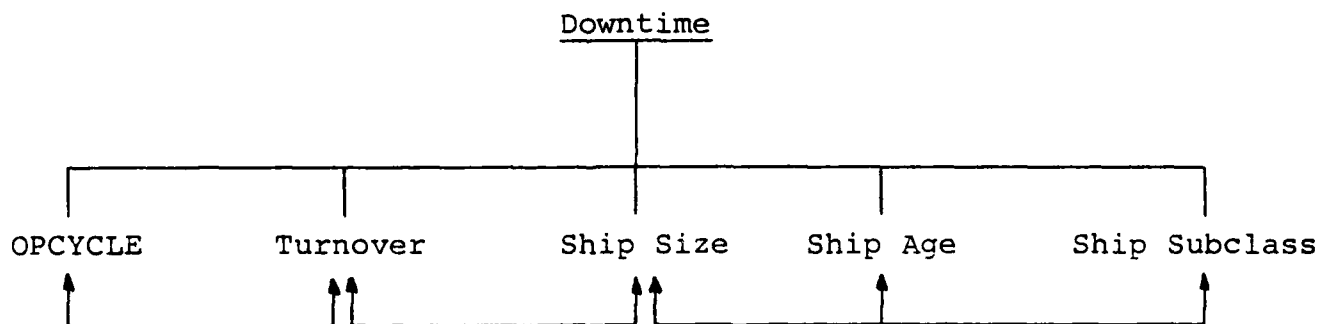


Figure 2. Model of Hypothesized Functional Relationships

etc., would not be described, and there would be inherent time lead/lag problems relative to the ship's preparation and stand-down from deployment.

The interaction depicted between ship class, age, and size describes the dependence of the ship's age and size on class. If one knows the subclass of the unit, the approximate type, size and age are also known. For example, given that the ship is a Midway-class carrier implies that the ship type is carrier, size is extra large in terms of personnel, and the ship probably was constructed in the 1940's. However, given that the ship was a Nimitz-class carrier would imply the same type and size information, but that the ship was constructed in the 1970's.

#### B. ANALYSIS

The three data sets created from the STF file, SHIPSRTA.DATA, REPORTED.DATA, and DEPARTED.DATA were utilized to determine the amount of turnover, by fiscal year and quarter, for each ship of the sample. As defined earlier, turnover is the flow of personnel through a given unit. It is important to realize that different measures can be applied to this concept. For example, NPRDC is currently monitoring personnel turnover throughout the Navy utilizing the ratio of attrition to mean endstrength as their measure. Alternative measures could include: (1) percentage of net change to unit, computed as the ratio of reporters minus departures to mean endstrength; (2) percentage of gain (loss) to the unit computed as the

ratio of personnel who report (depart) to mean endstrength; or, as utilized in this thesis, (3) percentage of total change to the unit, computed as the total personnel flow, reporters plus departers, relative to the mean endstrength. This particular measure was chosen because it was felt that it better reflected the impact of turnover that each organization faces. Utilization of percentage gain (loss) would only describe half of the picture and use of net change could possibly be misleading. If a unit experienced a complete change in personnel its percentage of net change would equal 0, whereas its total turnover would be 200%. For comparison, Appendix H contains the average yearly amount of turnover and the quarterly amount of turnover for each ship, as well as the average yearly turnover rates by ship type.

The first step of the analysis was to examine the relationship of downtime to turnover for all ships in the sample. A data set was developed that contained information in the form of matched pairs of data points, downtime and turnover rates. The data generation from the STF file was very similar to the repeated measures methodology discussed by Kerlinger and Pedhazier (1973), Namboodiri, et al. (1975), and Cohen and Cohen (1975). Although not a true "repeated measures" experiment, it was necessary to utilize this technique in order to develop enough data points for analysis. What resulted was a data set containing 400 data points (40 ships X 10 quarters). Four ships were eventually deleted from the

original sample due to anomalies in the turnover rates or associated CASREP data.

Since the goal of this thesis is to examine the relationship of downtime to turnover, it was assumed that the data were not time specific. The amount of variance in downtime explained by turnover (R-square), given the above assumptions aggregated for the entire sample was .00897; ( $F=.37, p=.54$ ); effectively zero. This implies that throughout the Navy downtime aboard ships is not affected by personnel turnover. Although CASREP is a "soft" measure of performance, it is significant that no relationship exists in light of an average quarterly turnover rate in excess of 39% for the same period. Given that utilization of CASREP data is plausible, it appears that management of turnover is not a problem at the "macro" level; i.e., upper echelons of command. It is important to note that it is highly probable that both downtime and turnover are related to the ship's operational cycle (time). As discussed earlier large turnover rates can be expected immediately preceding or following a deployment. Downtime also can be seen to be dependent on the unit's operational cycle, i.e., yard periods, or predeployment workups.

Since a relationship between downtime and turnover cannot be inferred at the "macro" level, possible relationships were explored at the individual ship level. Table III contains the resulting Pearson correlation coefficients by ship UIC for the sample. Examination of Table III highlights two interesting

TABLE III  
PEARSON CORRELATION COEFFICIENTS

UIC	r	UIC	r
02534	-.10	07351	.12
02538	.44	08808	.19
03128	-.03	08809	.70 *
03129	.00	20012	.44
03341	-.63 *	20050	-.07
03343	.25	20058	.04
03359	.06	20123	.10
03368	.85 **	20143	-.12
04621	-.11	20223	.64 *
04628	.15	20576	.17
04665	-.14	20632	.00
04666	-.19	20642	-.14
04674	.65 *	52198	.34
04689	.74 **	52234	-.52
04698	.10	52686	.31
04951	.00	52699	.00
05604	-.12	52700	.13
05833	-.42	54057	-.50
05836	.40	54064	-.08
05847	-.02	07183	.12

\* Significant at the .05 level

\*\* Significant at the .01 level

observations relative to the downtime/turnover relationship at this level. First, in only six of the forty ships was any significant relationship found. These six ships are not related in terms of ship type, ship size, or ship age. There is nothing in the current model that can offer an explanation as to why these particular ships have a statistically significant relationship, other than pure chance. Second, fifteen ships within the sample have coefficients that are contrary to the model's hypothesis, as exemplified by their sign. The negative coefficient implies that the greater the amount of turnover, the better the ship's performance.

In order to examine the questions raised above, it was decided to examine the possible relationship of the above individual Pearson correlation coefficients to the categorical descriptive variables of ship type, class, subclass, size and age. The correlation coefficients were merged with the previously discussed data set to create a data set containing ship categorical information, downtime and turnover data, as well as the associated Pearson coefficients. A complete description of this data set is contained in Appendix I.

An ANOVA procedure and the Duncan multiple range test were performed for each category utilizing the correlation coefficient as the dependent variable. Table IV shows the resulting R-square, F, and probability values.

As shown in Table IV and confirmed by the Duncan tests, there are no downtime/turnover relationships within the various

ship categories. Because the Pearson correlation coefficients were generally small and less than 1.0, it was decided to normalize the coefficients utilizing Fisher's Z transformation of r in order to increase the fidelity of the measures. The following formula was utilized (Cohen, 1975):

$$Z = 1/2 * (\log(1+r) - \log(1-r))$$

The ANOVA procedure was repeated and the results are shown in Table V. Again no relationship within the groups were found. This also was confirmed utilizing the Duncan test.

#### C. SUMMARY OF DATA ANALYSIS

The Survival Tracking File (STF) was subsetted into three subfiles containing personnel who reported to, departed from, or were assigned to one of the initial forty-four ships of interest. From these files, the quarterly rates of reporting, departing and turnover were computed. It was decided to utilize quarterly mean endstrength in the computation of turnover because derivation of the actual number of personnel onboard during the quarter could not be accurately determined. The endstrengths generated from the SHIPSRTA.DATA file were adjusted to reflect the average onboard during the period. The methodology utilized to construct the subfiles resulted in individuals being "counted" in both the current onboard file and the respective reported/departed file. The assumption that all personnel report or depart on the same day within the quarter, i.e., last day, was not considered valid. Since the

TABLE IV  
ANOVA RESULTS BY SHIP GROUPINGS

GROUP	R-SQUARE	F-VALUE	PROB>F
Ship type	.06	.59	.67
Ship class	.47	.63	.84
Ship subclass	.70	.80	.70
Size	.03	.40	.75
Age	.02	.27	.84

TABLE V  
ANOVA RESULTS BY SHIP GROUPINGS  
(TRANSFORMED DATA)

GROUP	R-SQUARE	F-VALUE	PROB>F
Ship type	.06	.57	.68
Ship class	.52	.75	.74
Ship subclass	.74	.99	.54
Size	.04	.50	.68
Age	.02	.28	.83



average person reporting or departing to a unit could be expected to spend only one-half of the quarter onboard, one half of the quarterly reporter and departer totals were subtracted from the total onboard count to adjust for the double counting of personnel.

A ship-specific data set was formed containing ship categorical variables, downtime and turnover data for the ten periods, and eventually the Pearson correlation coefficient for each ship.

The results of the analysis can be summarized as follows: The current data and associated assumptions utilized in the model do not support the inference of any relationship between ship performance (downtime) and personnel turnover. This is true at the "macro" or sample level as well as the "micro" or individual ship level. Nor are there any relationships present within the various ship-descriptive categories.

Although statistically significant relationships were found in the work accomplished by Horowitz and Sherman (1968), the analysis performed by this thesis doesn't support the expansion of their methodology to the ship level. It may be that the management at the small-work-group level is effective enough to prevent any adverse effects on ship performance from turnover/turbulence. This conclusion is strictly the opinion of the writer and is not supported by the analysis or the information contained in this report. Other possible

explanations revert to the discussions earlier on the suitability of CASREP data as a performance measure. CASREP data is recognized as a "soft" indication of overall ship performance; however, it is the only quantifiable measure that cuts across the entire spectrum of ship performance and effectiveness. For example, CASREP data are provided for equipment in each of the ship's functional areas, engineering and combat systems, as well as support related systems. Other potentially useful measures of performance would be a combination of measures such as ship steaming hours, exercise grades, standardized training/inspection grades, or objective Unit Reporting system information. Utilization of these other measures were beyond the scope of this effort and merit further research.

Another explanation of the lack of correlation between downtime and turnover may be the differences in their coefficients of variation, 120.8 and 30.9 respectively. These differences can be seen to be related to the anomalies found in both the CASREP reporting system and the extraction of the data from the STF file. Both are recognized as less than satisfactory, which is one of the risks of utilizing non-experimental data.

#### IV. CONCLUSIONS

The primary objective of this thesis was to examine the relationship between personnel turnover/turbulence and ship performance. Ancillary objectives were to: (1) examine the relationship between the personal characteristics of those personnel involved in the turnover and ship performance, and (2) examine characteristics of the personnel relative to the unit's management of the turnover.

The analysis determined that no significant relationship could be supported between macro levels of turnover and ship performance. Whether or not personnel is related to downtime or particular ship divisions, systems or subsystems cannot be determined from this research. Since no relationship was found, examination of the correlations of the personal characteristics of the personnel involved in the turnover with ship performance was not attempted. Descriptive statistics of the characteristics of the people reporting to and departing ships are provided in Appendices J and K for the interested reader.

## Appendix A

### Ship Class Unit Identification Code File

<u>Variable</u>	<u>Position</u>	<u>Field Width</u>
Unit Identification Code	5	5
Class	11	4
Hull Number	16	4
Ship Name	20	14
Homeport	36	6
TAC (Type of Activity Code)	43	1
Ship Type Code	45	1
Class Code	47	2
Sub-class Code	50	2
Size (Personnel)	53	1
Age (Commissioning)	55	1
Engineering Plant	57	1
Nuclear Capable	59	1
Location	61	1
Active/NRF	63	1

#### Variable Description

UIC - unit identification code assigned to each naval unit  
and support activity.

Class - Alphanumeric abbreviation of ship class.

Hull number - numeric identification number assigned to each  
ship hull.

Ship name - name or an abbreviated form of the ship's name.

Homeport - abbreviation of the homeport location of each vessel.

TAC - type activity code:

1. Sea Duty - CONUS
2. Sea Duty - Overseas

Ship type:

1. Combatants
2. Auxiliary
3. Submarine
4. Carrier
5. Amphibious
6. Minesweeper

Ship Class - code that numerically represents the general ship classification as found in position 11 through 15.

Ship Sub-class - code that describes the specific class or make of ship with the general class.

Example: USS Coral Sea, coded: 4 6 27.

Ship type - 4: Carrier

Ship class - 6: CV

Ship Sub-class - 27: Midway Class Carrier

Size:

1. Less than 100 personnel
2. 100-199 personnel
3. 200-299 personnel
4. 300-399 personnel

5. 400-499 personnel
6. 500-599 personnel
7. 600-1499 personnel
8. 1500-2499 personnel
9. Greater than 2500 personnel

Ships were grouped for analysis as follows:

1 and 2 = Small

3 and 4 = Medium

5,6, and 7 = Large

8 and 9 = Extra Large

Age:

1. Ships commissioned in the 1940's
2. Ships commissioned in the 1950's
3. Ships commissioned in the 1960's
4. Ships commissioned in the 1970's

Engineering Plant:

1. Nuclear
2. 1200 PSI Steam
3. 600 PSI Steam
4. Diesel
5. Diesel Electric
6. Gas Turbine

Nuclear Capable:

1. Nuclear Capable
2. Non-nuclear Capable

Location:

1. East Coast
2. West Coast
3. Overseas
4. Hawaii

Active or Reserve Status:

1. Reserve
2. Active

These variable descriptions were developed by Gardner (1981) and his definitions of small, medium, large and extra large were utilized for this thesis.

Appendix B  
Survival Tracking File

<u>Data Element</u>	<u>Length</u>	<u>Start</u>
Social Security Number	9	1
As-of Date Fiscal Year	2	10
As-of Date Quarter	1	12
As-of Date Count	2	13
Strength Indicator	1	15
Sex	1	16
Race	1	17
Ethnic Group	1	18
Date of Birth	4	19
AFQT	2	23
Education Years	2	25
Education Certification	1	27
A-School Indicator	1	28
Dependency-Primary	1	29
Term of Enlistment	1	30
Type of Enlistment	2	31
Term Status	1	33
Number of Enlistment	1	34
Type of Acquisition	2	35
Type of Program	1	37
Rate/Special Program Code	5	38



Branch/Class	2	43
RADO Months	3	45
Enlisted Designator	1	48
Present Rate Code	4	49
Present Pay Grade	1	53
PNEC	4	54
SNEC	4	58
ADSD	4	62
PEBD	4	66
CED	4	70
CADD	4	74
EAOS	4	78
Soft EAOS	4	82
EAOS Change Indicator	1	86
Onboard Actual UIC	5	87
Onboard ACC	3	92
Onboard Sea/Shore Code	1	95
Onboard Transfer Date	4	96
Past Actual UIC	5	100
SRB Received Indicator	1	105
SRB Zone	1	106
SRB Skill Indicator	1	107
SRB Award Level	1	108
RQC	2	109
Loss Date of Occurrence	4	111
Loss Code Navy	3	115
Loss Code DOD	3	118

## Appendix C

### CASREP Data

Ship Type

Hull Number

Severity of Outstanding Casreps

C-2

C-3

C-4

Total

Severity of Corrected Casreps

C-2

C-3

C-4

Total

Downtime Awaiting Parts (DWP)

Open Downtime

Corrected Downtime

Note:

Maintenance Downtime = Corrected Downtime - DWP

This data was converted to the following data set:

<u>Data Element</u>	<u>Length</u>	<u>Start</u>
UIC	5	1
TIME (Fiscal year and quarter)	3	9
Downtime (maintenance)	3	14

Appendix D  
Ships of the Sample

02534	ARS	35	CCNSERVER	PEARL	22
02538	LSD	43	RECOVERY	L CRK	22
03128	LSD	28	THOMASTON	SDGO	22
03129	CV	25	PLYMOUTH ROCK	L CRK	41
03341	CV	41	MIDWAY SEA	YOKSKA	21
03343	CV	43	CORAL SEA	ALAMED	11
03359	CVN	59	FORRESTAL	MAYPRT	21
03368	AS	68	NIMITZ	NORVA	11
04621	AS	128	SPERRY	SDGO	33
04628	AD	17	PIEDMONT	CHARLE	33
04637	AD	33	PARSONS	NORVA	22
04665	CDG	950	EDWARDS	YOKSKA	33
04666	CDG	8	LYNDE MCCORMICK	PEARL	22
04674	AS	31	HUNLEY	SDGO	33
04689	AS	51	RICHARD L PAGE	AGANA	33
04698	SS	51	ASHTABULA	PHILA	33
04951	SS	581	BLUEBACK	PEARL	22
05604	ACE	116	CAMDEN	SDGO	33
05833	AFS	5	CONCORD	BREM	33
05836	LKA	119	ST LOUIS	NORVA	33
05847	LPD	3	DENVER	SDGO	33
07183	LPH	57	OKINAWA	SDGO	33
07351	AR	37	VULCAN	NORVA	33
08808	AR	1079	HECTOR	SFRAN	33
08809	LSU	1087	PORTLAND	CHESLE	33
20050	FF	29	BOWEN	CHARLE	33
20058	FF	1087	KIRK	YOKSKA	33
20112	AE	29	MOUNT HCOU	CONCRD	33
20123	ASR	4	SAVANNAH	NORVA	33
20143	LST	21	PIGEON	VALLEJ	33
20223	LHA	1197	BARNSTABLE CTY	SDGO	33
20576	SSN	965	KINKAID	L CRK	33
20632	SSBN	687	SAIPAN	NORVA	33
20642	SSBN	611	RICHARD D RUSSELL	GROTON	33
30109	SSBN	611	J MARSHALL BLUE	PEARL	33
30110	CD	538	J MARSHALL GOLD	CHARLE	33
52198	CD	40	JONAS INGRAM	NORVA	33
52234	LDG	46	COONTZ	PEARL	33
52686	LDG	24	PREBLE	SDGO	33
52699	CG	25	REEVES	PEARL	33
52700	CGN	1062	BAINBRIDGE	PEARL	33
54057	FF	1062	WHIPPLE	SDGO	33
54064	FF	1062	BAGLEY	SDGO	33

Appendix E  
Subfile Data Elements

The data elements listed below are contained in the REPORTED.  
DATA, DEPARTED.DATA AND SHIPSRTA.DATA subfiles.

<u>Element</u>	<u>Variable Name</u>	<u>Start</u>	<u>Length</u>
Social Security Number	SSN	1	9
As-of-Date Fiscal Year	FY	11	2
As-of-Date Quarter	Quarter	13	1
As-of-Date Count	Count	14	2
Sex	Sex	17	1
Race	Race	18	1
Ethnic Group	Ethnicgp	20	1
Date of Birth (year)	DOBYR	22	2
Date of Birth (month)	DOBMO	24	2
AFQT	AFQT	27	2
Education	Ed	30	2
Current Rate	Rate	33	4
Current Paygrade	Paygrde	37	1
Active Duty Start Date (year)	ADSDYR	39	2
Active Duty Start Date (month)	ADSDMO	41	2
Current Actual Onboard UIC	UIC	44	5
Sea/Shore Code	Seashore	50	1
Past Actual Onboard UIC	PastUIC	52	5
Ship Class	Stype	59	4

Hull Number	Hulln	64	4
Ship Name	-	69	14
Homeport	-	88	6
Type Activity Coce	TAC	96	1
Ship Type Code	SCODE	98	1
Class Code	SCLASS	100	2
Sub-class Code	Subclass	104	2
Size (Personnel)	Size	107	1
Age (Commissioning)	Sage	109	1
Engineering Plant	EngPlnt	111	1
Nuclear Capable	Neuc	113	1
Location	Location	115	1
Active/NRF	Status	117	1

## Appendix F

### Personnel Selection Fortran Program Listing





```

C C C FOR THE LAST PERSON, RDREC RETURNS LAST=2
C C C UP TO THAT TIME, LAST=1
C C C 100 CONTINUE
C C C CALL RDREC(NREC, LAST)
C C C AT THIS POINT YOU HAVE ALL ONE INDIVIDUAL'S RECORDS IN
C C C MATRIX 'B'. YOU CAN CALCULATE OR EXTRACT THE INFORMATION
C C C OF INTEREST AND PRINT IT CUT OR WRITE IT TO DISK.
C C C
C C C THIS SUBROUTINE WILL TEST FOR ERRORS IN THE FIRST DIGIT OF THE
C C C CURRENT ONBCARD UIC. IF ONE IS FOUND A CORRECTION IS MADE.
C C C THE ONLY ERROR TESTED FOR IS A 9 AS THE FIRST CHARACTER OF THE
C C C UIC.
C C C CALL TEST(NREC, LAST)
C C C
C C C THIS SUBROUTINE WILL CREATE A SUBFILE OF ALL PERSONNEL ATTACHED TO
C C C THE SHIPS OF INTEREST. IT COMPARES EVERY RECORD IN MATRIX B TO THE
C C C SHIPS OF INTEREST. IF A MATCH IS FOUND IT PRINTS THE RECORD
C C C
C C C CALL SHPSRT(NREC, LAST)
C C C
C C C THIS SUBROUTINE WILL DETERMINE CHANGES IN THE INDIVIDUALS UIC
C C C FILE. IT WILL THEN COMPARE THE UICS TO SHIP UIC FILE AND PRINT
C C C A FILE OF REPORTERS AND LEAVERS.
C C C
C C C CALL CUTPUT(NREC, NUIC)
C C C IF THIS IS THE LAST CASE,
C C C BRANCH OUT OF THE LOOP.
C C C
C C C 220 IF(LAST.EQ.2) GO TO 250
C C C GO TO 100
C C C
C C C 250 CONTINUE
C C C STOP
C C C END
C C C *****RECORD READING SUBROUTINE*****
C C C *****
C C C SUBROUTINE RDREC(NREC, LAST)
C C C REAL*8 A, B, SSN
C C C REAL*8 UIC
C C C COMMON A(16), B(20, 16), SSN(2), UIC(44, 10)

```

```

REE00490
REE00500
REE00510
REE00520
REE00530
REE00540
REE00550
REE00560
REE00570
REE00580
REE00590
REE00600
REE00610
REE00620
REE00630
REE00640
REE00650
REE00660
REE00670
REE00680
REE00690
REE00700
REE00710
REE00720
REE00730
REE00740
REE00750
REE00760
REE00770
REE00780
REE00790
REE00800
REE00810
REE00820
REE00830
REE00840
REE00850
REE00860
REE00870
REE00880
REE00890
REE00900
REE00910
REE00920
REE00930
REE00940
REE00950
REE00960

```





THIS SUBROUTINE WILL TEST AN INDIVIDUALS RECORD FOR A TYPO-  
GRAPHICAL ERROR IN THE FIRST DIGIT OF THE CURRENT ONBOARD  
UIC. IT WAS DETERMINED THAT A 9 IN THE FIRST DIGIT OF A UIC  
WAS AN INDICATOR OF A POSSIBLE ERROR. UIC'S THAT BEGIN WITH  
A 9 ARE USUALLY RESERVED FOR CIVILIAN SUPPORT ACTIVITIES.  
THE TEST LOCATES A 9 IN THE FIRST DIGIT OF THE UIC AND THEN  
COMPARES THE LAST FOUR DIGITS WITH THE UIC THAT IMMEDIATELY  
PROCEEDS OR FOLLOWS. IF A MATCH IS FOUND THE UIC WITH THE 9  
IS CHANGED TO MATCH.

```

IF (NREC .EQ. 1) GO TO 20
DO 10 I=1,NREC
  IF (B(I,12) .NE. NINE) GO TO 10
  IF (I .EQ. 1) GO TO 300
  IF (I .EQ. NREC) GO TO 400
  IF (B(I,13) .NE. B(I+1,13)) .AND. (B(I,13) .NE. B(I-1,13))
    GO TO 10
    IF (B(I,13) .EQ. B(I+1,13)) GO TO 500
    IF (B(I,12) .EQ. B(I-1,12))
      GO TO 10
    B(I,12) = B(I+1,12)
    GO TO 10
  IF (B(I,13) .NE. B(I-1,13)) GO TO 10
  B(I,12) = B(I-1,12)
  GO TO 10
CONTINUE
IF (B(I,13) .EQ. B(I+1,13)) GO TO 10
B(I,12) = B(I+1,12)
GO TO 10
CONTINUE
CONTINUE
CONTINUE
CONTINUE
RETURN
END

```

\*\*\*\*\*  
\*\*\*\*\* SHIP SORTING SUBROUTINE \*\*\*\*\*  
\*\*\*\*\*

REE01930  
 REE01940  
 REE01950  
 REE01960  
 REE01970  
 REE01980  
 REE01990  
 REE02000  
 REE02010  
 REE02020  
 REE02030  
 REE02040  
 REE02050  
 REE02060  
 REE02070  
 REE02080  
 REE02090  
 REE02100  
 REE02110  
 REE02120  
 REE02130  
 REE02140  
 REE02150  
 REE02160  
 REE02170  
 REE02180  
 REE02190  
 REE02200  
 REE02210  
 REE02220  
 REE02230  
 REE02240  
 REE02250  
 REE02260  
 REE02270  
 REE02280  
 REE02290  
 REE02300  
 REE02310  
 REE02320  
 REE02330  
 REE02340  
 REE02350  
 REE02360  
 REE02370  
 REE02380  
 REE02390



02538	003128	003129	003341	003343	003359	003368	004621	004637	004665	004666	004674	004689	004698	004951	005604	005833	005836	005847	007183	007351	008808	020012	020050	020058	020112	020123	020143	020223	020576	020642	030109	030110	052198	052234	052268	052699	052700	054064		
ARS	LSD	LSD	CV	CV	CVN	CVN	AS	AD	DDG	DD	DDG	AS	AD	SS	SS	ANES	AFS	LKA	LPH	LPH	AR	AR	LSD	FFF	FFF	AE	ANR	AST	LST	DN	LHA	SSNN	SSNN	SSNN	DD	DDG	DDG	CGN	CGF	FF

Appendix G  
Quarter Conversion Fortran Program Listing

```

//REEVES JOB (2313,0144), 'WAYNE R REEVES 1444', CLASS=C
//*MAIN ORG=NPVGM1.2313P
/// EXEC FORTXCG
///SYN DD *
C      THIS PROGRAM WILL CREATE ANOTHER DATA SET FROM THE
C      SUBSETTED STF FILES. IT WILL INDEX THE FISCAL YEAR
C      AND QUARTER OF THE RECORD AND THEN REWRITE IT IN AN-
C      OTHER DATA BANK.
C
C      THE RECCRD WILL BE READ INTO A VECTOR 19 SPACES LONG
C      ELEMENTS OF THE VECTOR WILL BE USED TO DETERMINE CURRENT
C      QUARTER AND COUNT AND THEN INDEXED ACCORDINGLY.
C
C      REAL*8 A(19)
C      INTEGER COUNT,Q,I
C      COUNT=0
C
C      READ IN THE FIRST RECORD
C      SET COUNT = TO THE RECORD'S COUNT AND Q = TO RECORD'S QUARTER
C
C      READ(1,50 ENQ=500) A(1),A(2),13,14,15,A(6),A(7),A(8)
C      *A(9),A(10),A(11),A(12),A(13),A(14),A(15),A(16),A(17),A(18),A(19)
C      FORMAT (A1,A8,IX,12,11,12,13A8,A1)
C      COUNT=15
C      Q=14
C
C      THE FIRST TEST WILL DETERMINE WHETHER THE RECORD IS FOR
C      ONE QUARTER ONLY. IF IT IS THE RECORD WILL BE WRITTEN TO
C      THE NEW FILE AS IS. OTHERWISE THE PROGRAM WILL BRANCH AROUND
C      THE WRITE TO THE NEXT TEST.
C
C      IF (COUNT.NE.1) GO TO 100
C      WRITE(2,50) A(1),A(2),13,14,15,A(6),A(7),A(8)
C      *A(9),A(10),A(11),A(12),A(13),A(14),A(15),A(16),A(17),A(18),A(19)
C      GO TO 010
C
C      THIS TEST WILL BE REPEATED FOR THE AMOUNT OF THE COUNT. IT WILL

```



SOR00490  
 SOR00500  
 SOR00510  
 SOR00520  
 SOR00530  
 SOR00540  
 SOR00550  
 SOR00560  
 SOR00570  
 SOR00580  
 SOR00590  
 SOR00600  
 SOR00610  
 SOR00620  
 SOR00630  
 SOR00640  
 SOR00650  
 SOR00660  
 SOR00670  
 SOR00680  
 SOR00690  
 SOR00700  
 SOR00710  
 SOR00720  
 SOR00730  
 SOR00740  
 SOR00750  
 SOR00760  
 SOR00770  
 SOR00780  
 SOR00790  
 SOR00800  
 SOR00810  
 SOR00820  
 SOR00830

TEST TO DETERMINE WHETHER THE RECORD STARTS IN THE FOURTH  
 QUARTER. IF IT DOES IT INDEXES THE FISCAL YEAR AND RESETS THE  
 QUARTER TO ONE. OTHERWISE, IT SETS THE COUNT TO ONE, INDEXES THE  
 QUARTER AND WRITES THE RECORD.

DO 200 I=1, COUNT  
 IF (Q.EC. 4) GO TO 300

WRITE(2,50) A(1), A(2), I3, I4, I5, A(6), A(7), A(8),  
 \*A(9), A(10), A(11), A(12), A(13), A(14), A(15), A(16), A(17), A(18), A(19)

I4=I4+1  
 Q=I4  
 GO TO 301

CONTINUE  
 I5=1  
 WRITE(2,50) A(1), A(2), I3, I4, I5, A(6), A(7), A(8),  
 \*A(9), A(10), A(11), A(12), A(13), A(14), A(15), A(16), A(17), A(18), A(19)

I3=I3+1  
 I4=1  
 Q=I4  
 CONTINUE  
 GO TO 010  
 CONTINUE  
 STOP

//GO.FT02F001 DD UNIT=3330V,MSVGP=PUB42, DISP=(NEW,CATLG),  
 // SPACE=(CYL,(64,4)),DCB=(RECFM=FB,LRECL=120,BLKSIZE=12000),  
 // DSN=MSS.S2313.QUARTER.REPORTED.DATA  
 //GO.FT01F001 DD UNIT=3330V,MSVGP=PUB42, DISP=(OLD,KEEP),  
 // DCB=(RECFM=FB,LRECL=120,BLKSIZE=12000),SPACE=(CYL,(64,4)),  
 // DSN=MSS.S2313.REPORTED.DATA

# Appendix H

## Average Turnover Rates

### Average Yearly Turnover by Ship Type

SHIP TYPE	COMBATANT	AUXILIARY	SUBMARINE	CARRIER	AMPHIBIOUS
Turnover	1.519	1.554	1.587	1.342	1.44
Std. Dev	.166	.110	.163	.079	.115
N	14	14	2	4	7

### Quarterly and Average Yearly Turnover Rates by UIC

UIC	FISCAL YEAR AND QUARTER										AVG YR
	801	802	803	804	811	812	813	814	821	822	
02534	.439	.475	.182	.292	.243	.341	.463	.560	.329	.414	1.500
02538	.324	.297	.486	.378	.243	.554	.581	.594	.189	.486	1.729
03128	.269	.410	.305	.290	.316	.472	.338	.392	.323	.432	1.398
03129	.189	.328	.324	.317	.262	.598	.200	.379	.240	.423	1.301
03341	.284	.428	.326	.337	.360	.476	.311	.428	.352	.416	1.477
03343	.282	.328	.309	.268	.290	.421	.329	.348	.323	.363	1.289
03359	.297	.395	.306	.344	.334	.462	.347	.463	.381	.383	1.322
03368	.276	.280	.321	.269	.271	.392	.307	.441	.345	.376	1.280
04621	.406	.427	.271	.456	.292	.424	.343	.430	.377	.530	1.526
04628	.423	.347	.439	.689	.196	.334	.305	.598	.471	.508	1.667
04637	.343	.470	.480	.383	.409	.384	.368	.390	.363	.405	1.613
04665	.236	.587	.346	.406	.938	.449	.394	.536	.417	.547	1.940
04666	.381	.344	.289	.463	.333	.418	.285	.433	.266	.348	1.473
04674	.309	.387	.273	.305	.348	.326	.412	.458	.387	.461	1.409
04689	.402	.503	.769	.412	.350	.373	.285	.453	.393	.393	1.773
04698	.289	.323	.352	.304	.309	.420	.255	.458	.420	.589	1.355

UIC	FISCAL YEAR AND QUARTER										AVG YR
	801	802	803	804	811	812	813	814	821	822	
04951	.378	.502	.426	.371	.338	.378	.295	.353	.320	.371	1.520
05604	.353	.662	.309	.162	.397	.441	.559	.618	.420	.368	1.750
05833	.309	.401	.306	.370	.453	.440	.338	.433	.363	.469	1.525
05836	.456	.343	.368	.384	.289	.516	.264	.343	.419	.478	1.481
05847	.341	.333	.314	.364	.283	.310	.314	.302	.375	.391	1.280
07183	.342	.353	.339	.285	.299	.467	.353	.485	.339	.402	1.461
07351	.268	.418	.381	.381	.338	.466	.402	.455	.266	.280	1.554
08808	.337	.387	.328	.337	.340	.440	.354	.421	.295	.375	1.472
08809	.318	.318	.292	.325	.345	.417	.327	.493	.352	.443	1.417
20012	.325	.310	.374	.377	.377	.366	.377	.501	.355	.456	1.503
20050	.268	.321	.434	.326	.365	.356	.375	.585	.570	.409	1.337
20058	.281	.352	.290	.372	.381	.472	.357	.519	.310	.510	1.512
20112	.336	.444	.328	.377	.406	.526	.436	.470	.380	.470	1.661
20123	.335	.380	.383	.328	.351	.306	.264	.490	.370	.438	1.418
20143	.318	.325	.369	.304	.296	.419	.427	.477	.361	.456	1.467
20223	.284	.390	.461	.432	.343	.420	.361	.550	.521	.544	1.620
20576	.342	.422	.322	.386	.342	.338	.330	.410	.354	.370	1.446
20632	.291	.297	.373	.363	.407	.444	.300	.457	.372	.333	1.466
20642	.370	.304	.361	.323	.351	.408	.256	.475	.313	.456	1.424
52198	.321	.367	.364	.410	.383	.387	.325	.398	.364	.498	1.477
52234	.280	.363	.379	.312	.292	.395	.257	.486	.408	.389	1.382
52686	.276	.384	.406	.488	.250	.371	.384	.429	.338	.377	1.494
52699	.373	.342	.263	1.049	.339	.348	.301	.408	.376	.339	1.711
52700	.250	.379	.303	.265	.372	.425	.279	.408	.346	.415	1.340
54057	.275	.408	.436	.374	.322	.351	.313	.484	.332	.460	1.481
54064	.323	.338	.400	.318	.381	.386	.376	.478	.415	.362	1.500

Appendix I  
Final Data Set

The final data set utilized for analysis is described below. The ships were selected in a manner to insure adequate representation of various ship classes and missions of today's Naval forces, but were randomly selected within the subgroups to prevent inadvertant biases in the data. Although STF data was available from the fourth quarter of FY 1977 until the second quarter of FY 1982, CASREP data was only available for FY 1980 to second quarter of FY 1982.

DATA ELEMENT	POSITION -	LENGTH
Unit Identification Code *	4	5
Ship Type *	12	1
Ship Class *	20	2
Ship Subclass *	28	2
Size (Personnel) *	36	1
Age *	44	1
Correlation Coefficient	52	8
Downtime (Days)	60	4
Turnover	68	8

\* The coding of these data elements was discussed in Appendix E.

## Appendix J

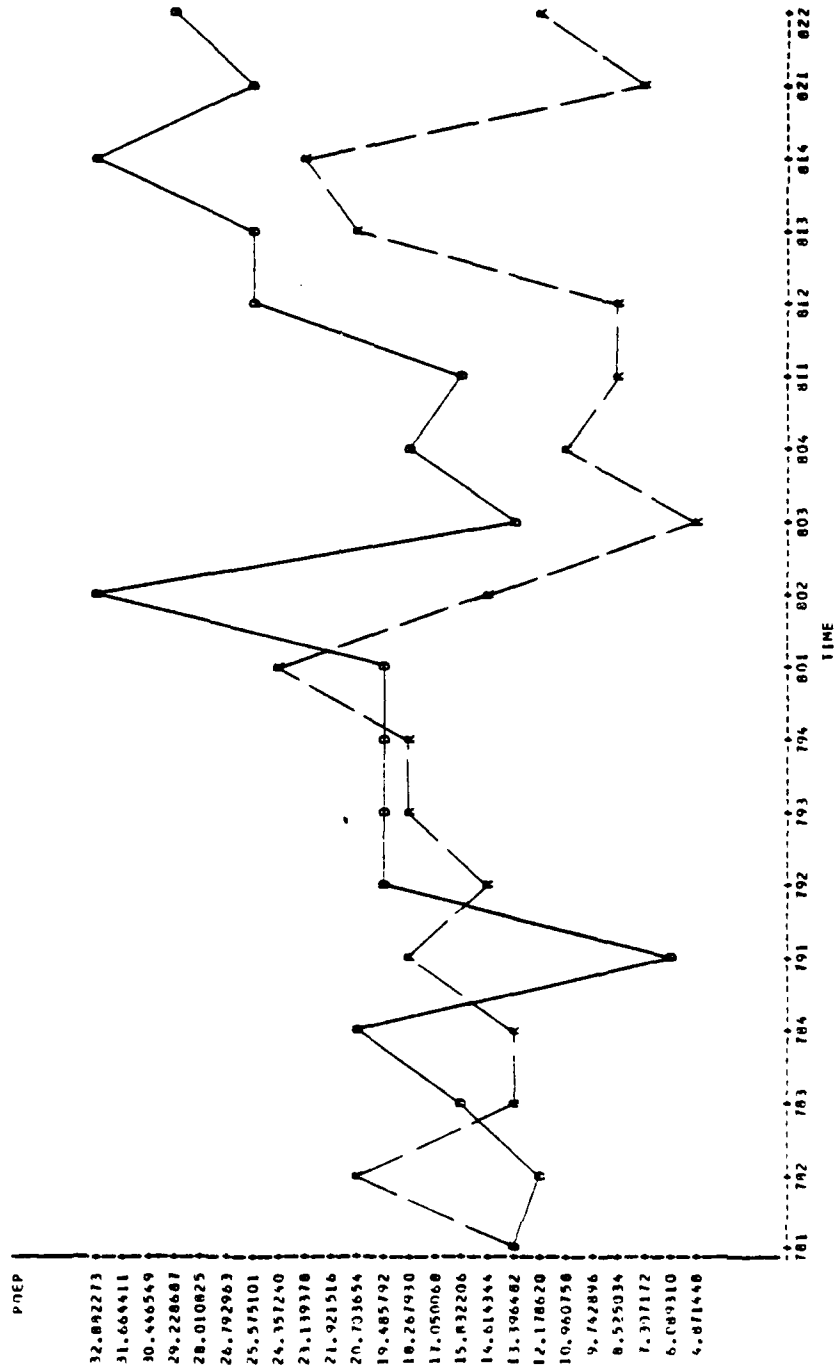
### Graphs of Percentage of Reporters and Leavers by UIC

The graphs contained in this appendix portray the percentage of personnel who report to and leave from a ship contained in the sample. The solid line connecting the "D" in the graph depicts the changes in the percentage of departers. Likewise, the dashed line connecting the "R" in the graph depicts the reporters.

# STATISTICAL ANALYSIS SYSTEM

UIC-02534

PLOT OF PREP TIME SYMBOL USED IS R

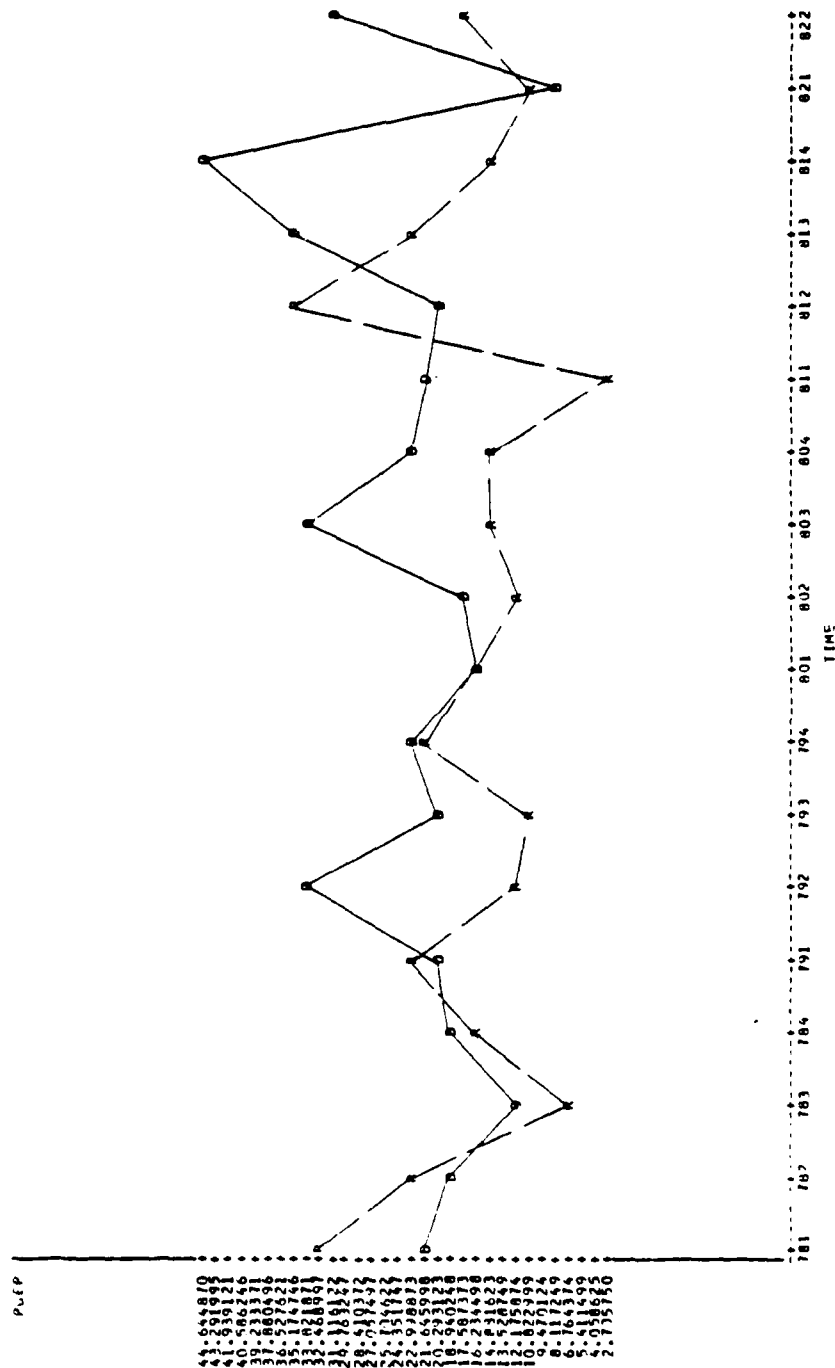


ARS 39 CONSERVER

# STATISTICAL ANALYSIS SYSTEM

UIC-02537

PLOT OF PREP+TIME SYMBOL USED IS R

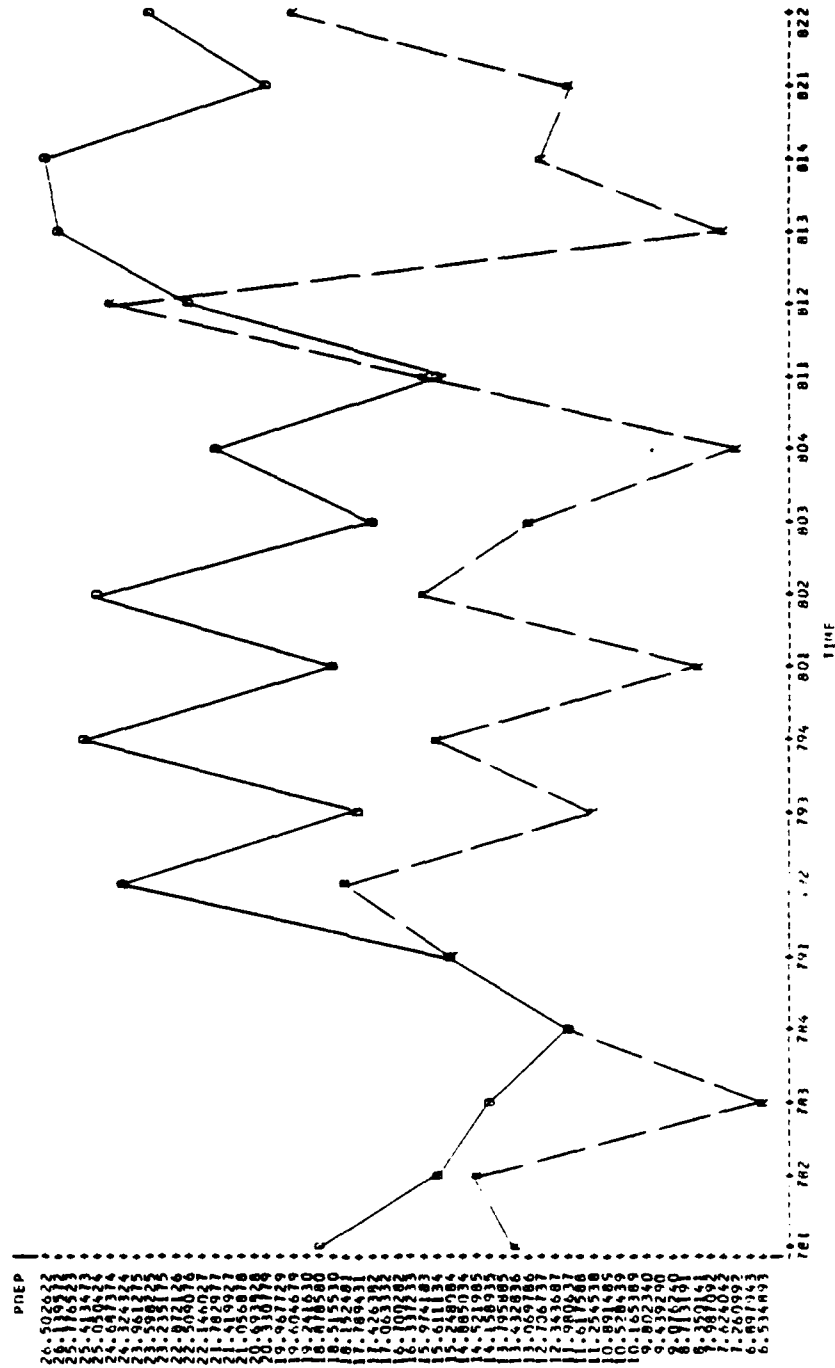


ARS 43 RECOVERY

# STATISTICAL ANALYSIS SYSTEM

UIC-03120

PLOT OF PREP TIME SYMBOL USED IS O

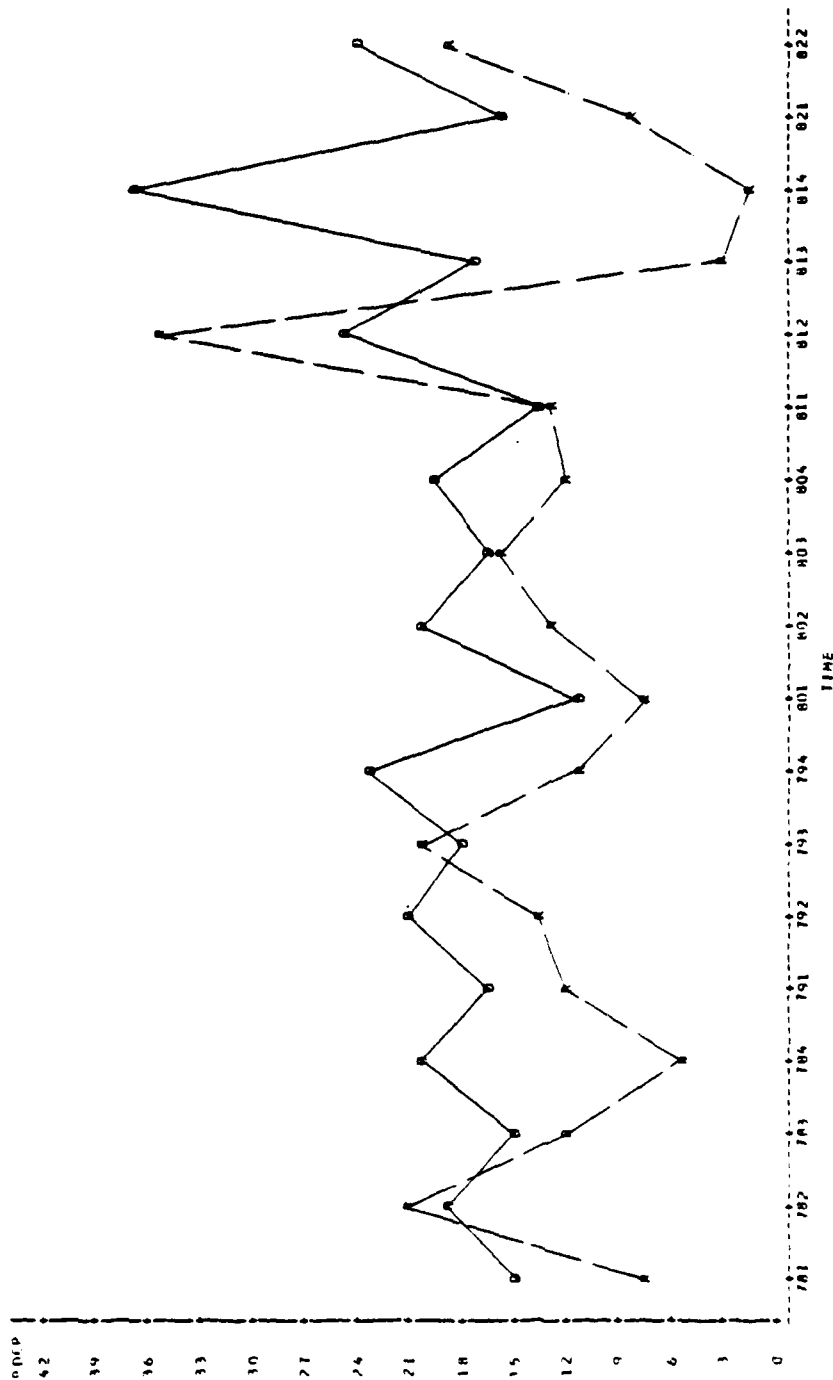


LSD 28 THOMAS'ON



# STATISTICAL ANALYSIS SYSTEM

UIC-03129  
 PLOT OF POST-TIME SYMBOL USED IS D  
 PLOT OF PRE-TIME SYMBOL USED IS R

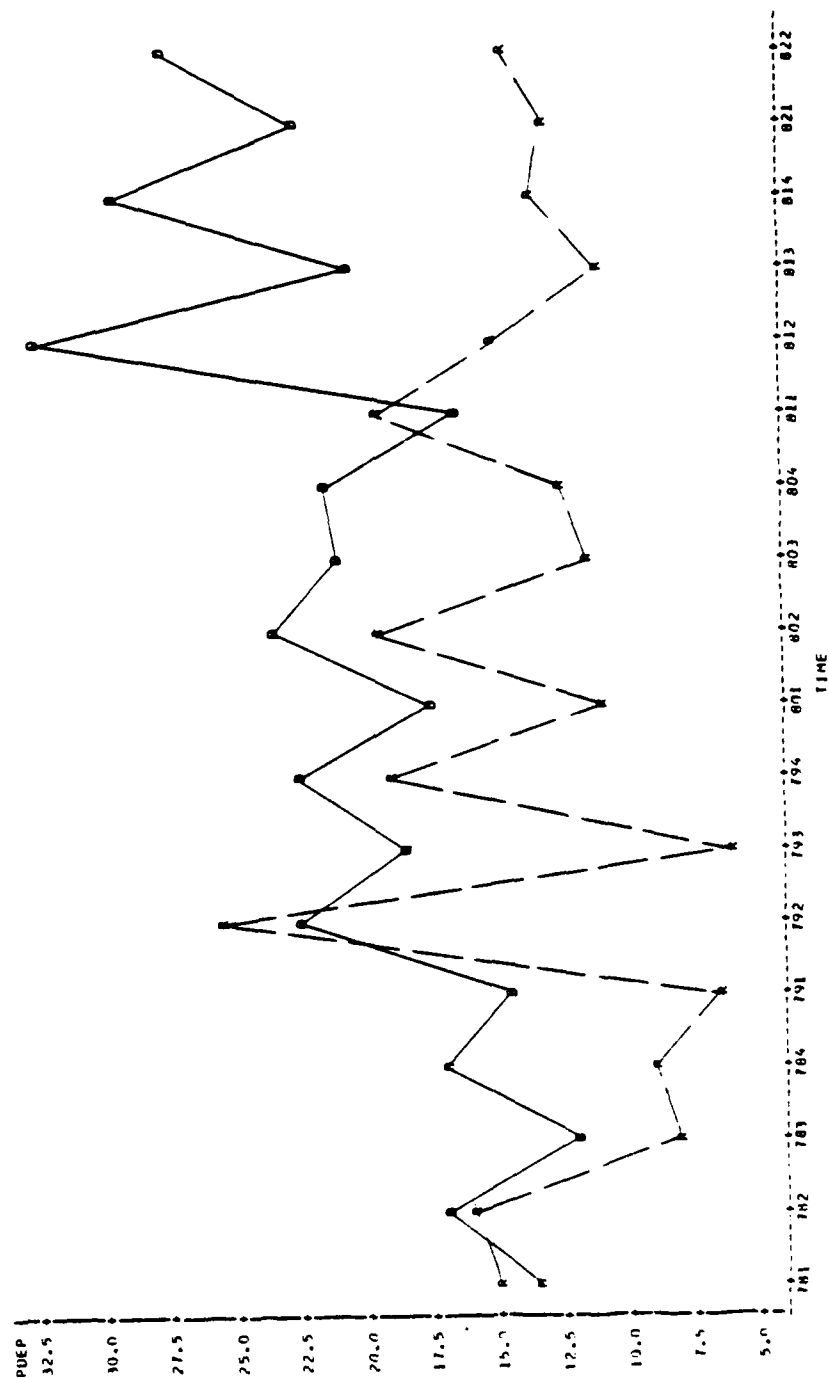


LSD 29 PLYMOUTH ROCK

# STATISTICAL ANALYSIS SYSTEM

UIC-03343

PLOT OF PREOPTIME SYMBOL USED 13 R



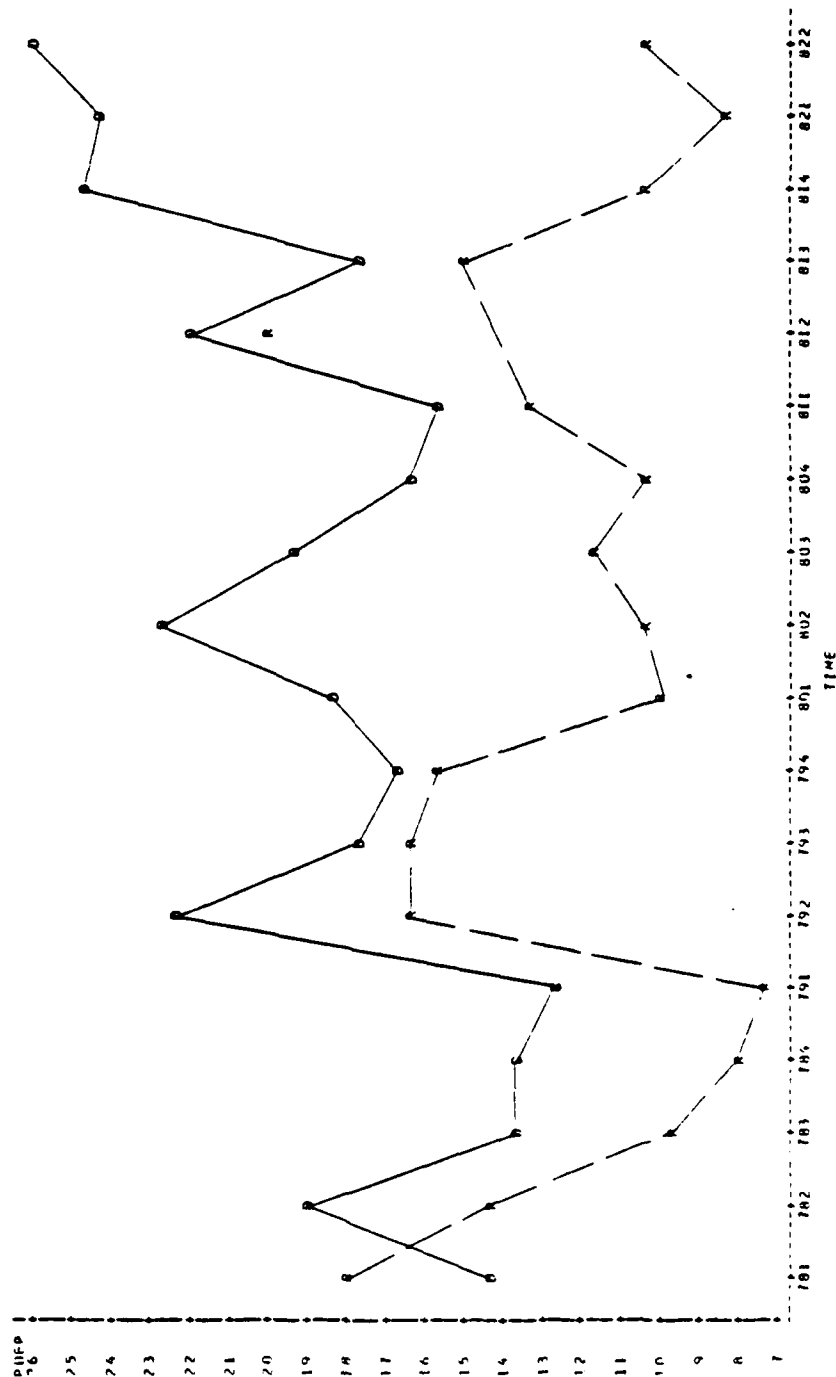
CV 41 MIDWAY

# STATISTICAL ANALYSIS SYSTEM

UIC-03343

PLOT OF PREPOTIME  
SYMBOL USED IS D

PLOT OF PREPOTIME  
SYMBOL USED IS R



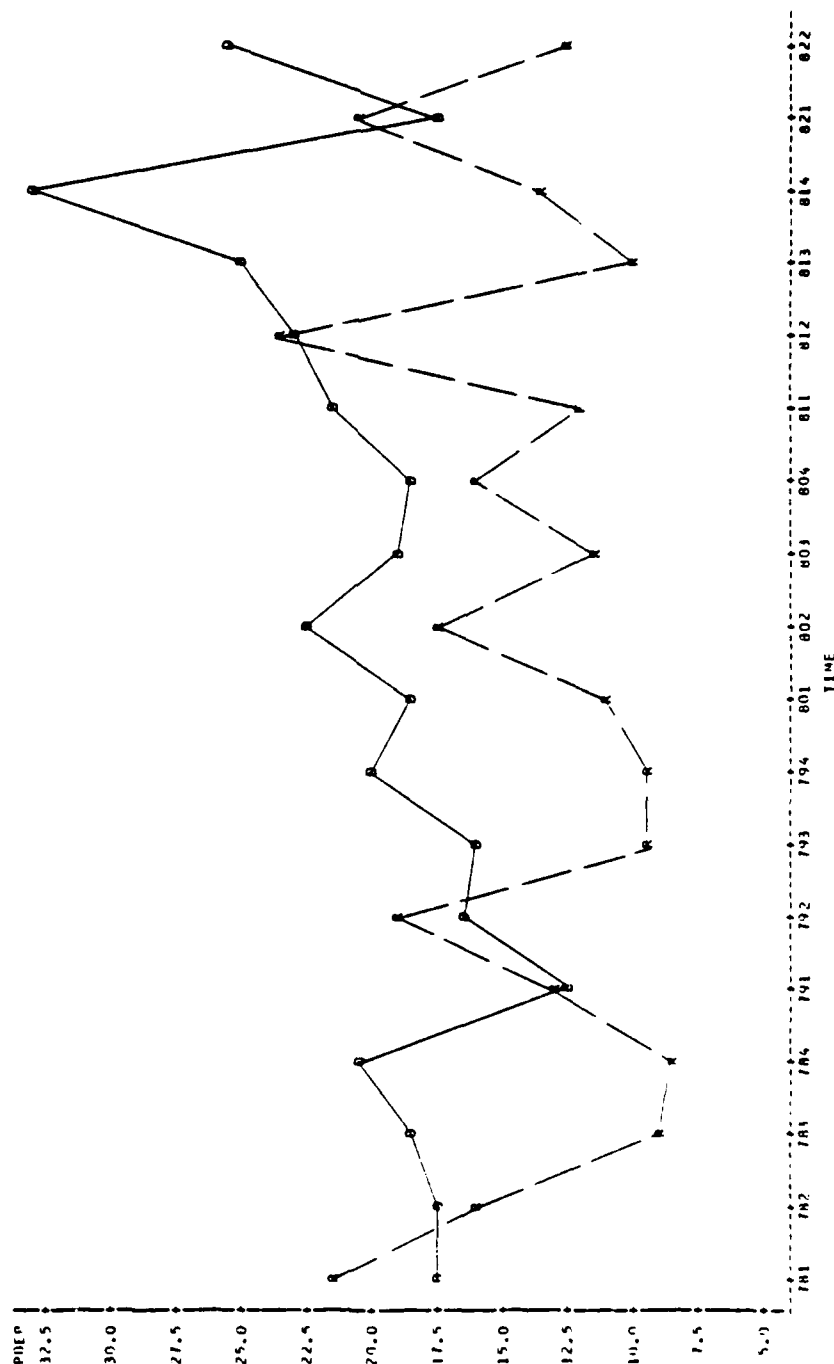
CV 43 CORAL SEA

# STATISTICAL ANALYSIS SYSTEM

UIC-03359

PLOT OF PDEP\*TIME  
PLOT OF PREP\*TIME

SYMBOL USED IS D  
SYMBOL USED IS R

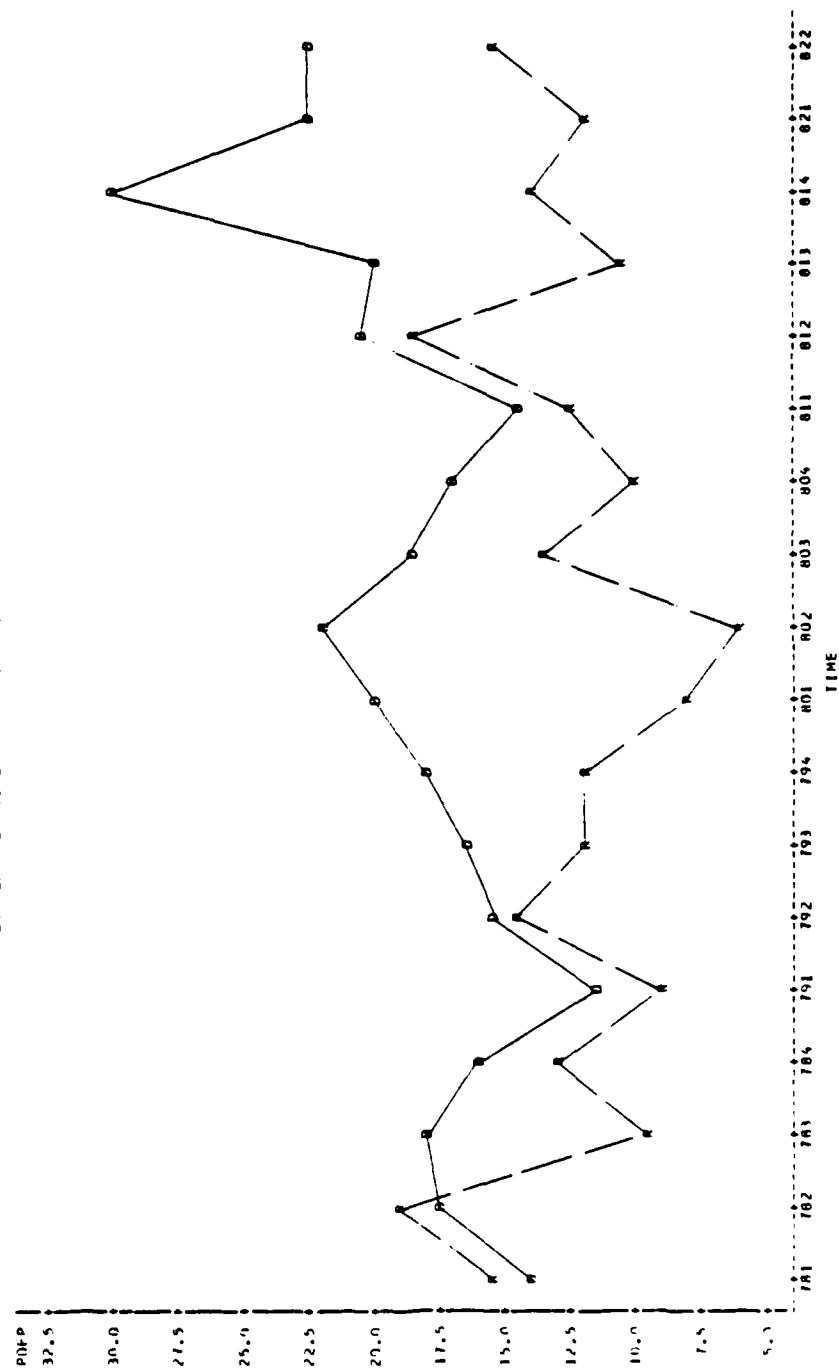


CV 59 FORRESTAL

STATISTICAL ANALYSIS SYSTEM

UIC-03368

PLOT OF PREPOTIME SYMBOL USED IS R

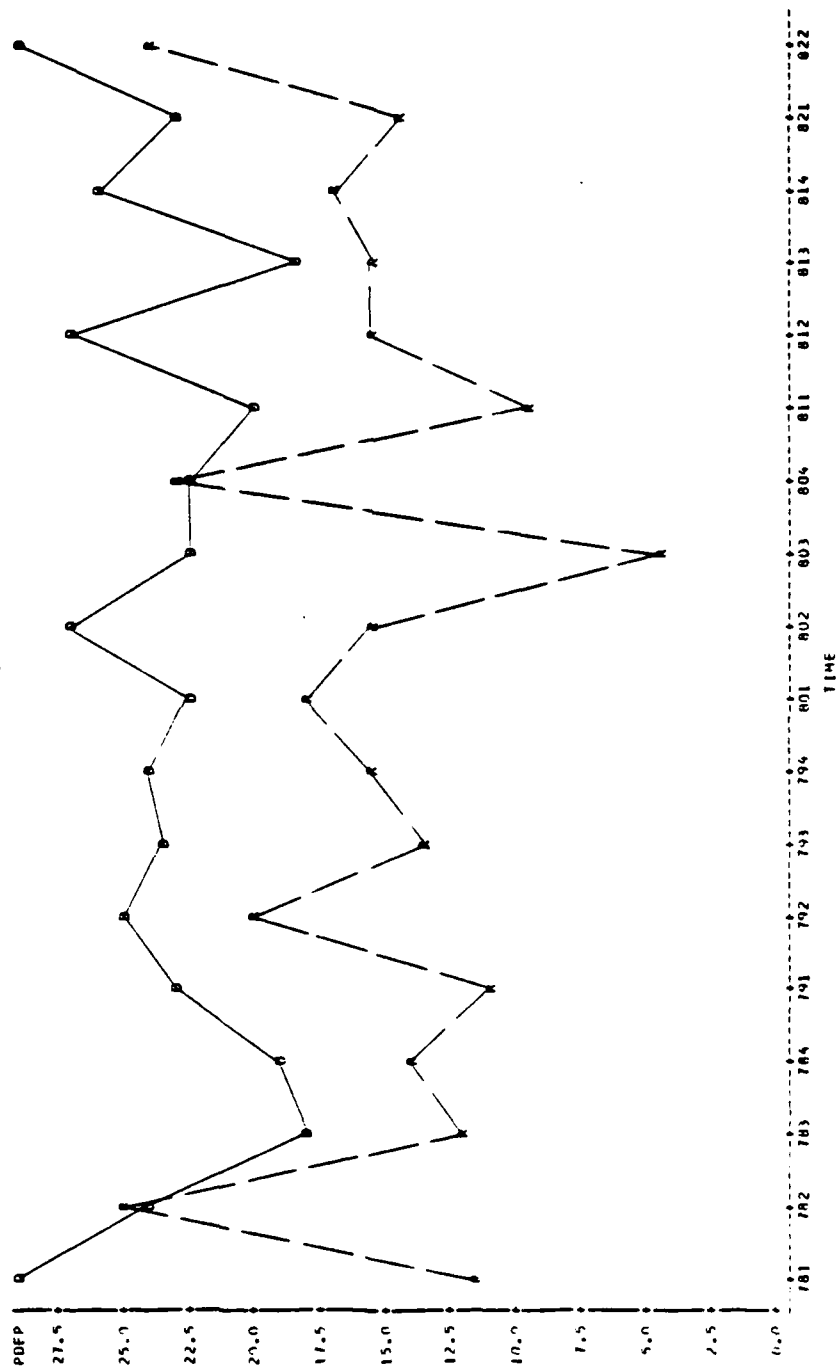


CVN 68 NIMITZ

# STATISTICAL ANALYSIS SYSTEM

UTC=0421

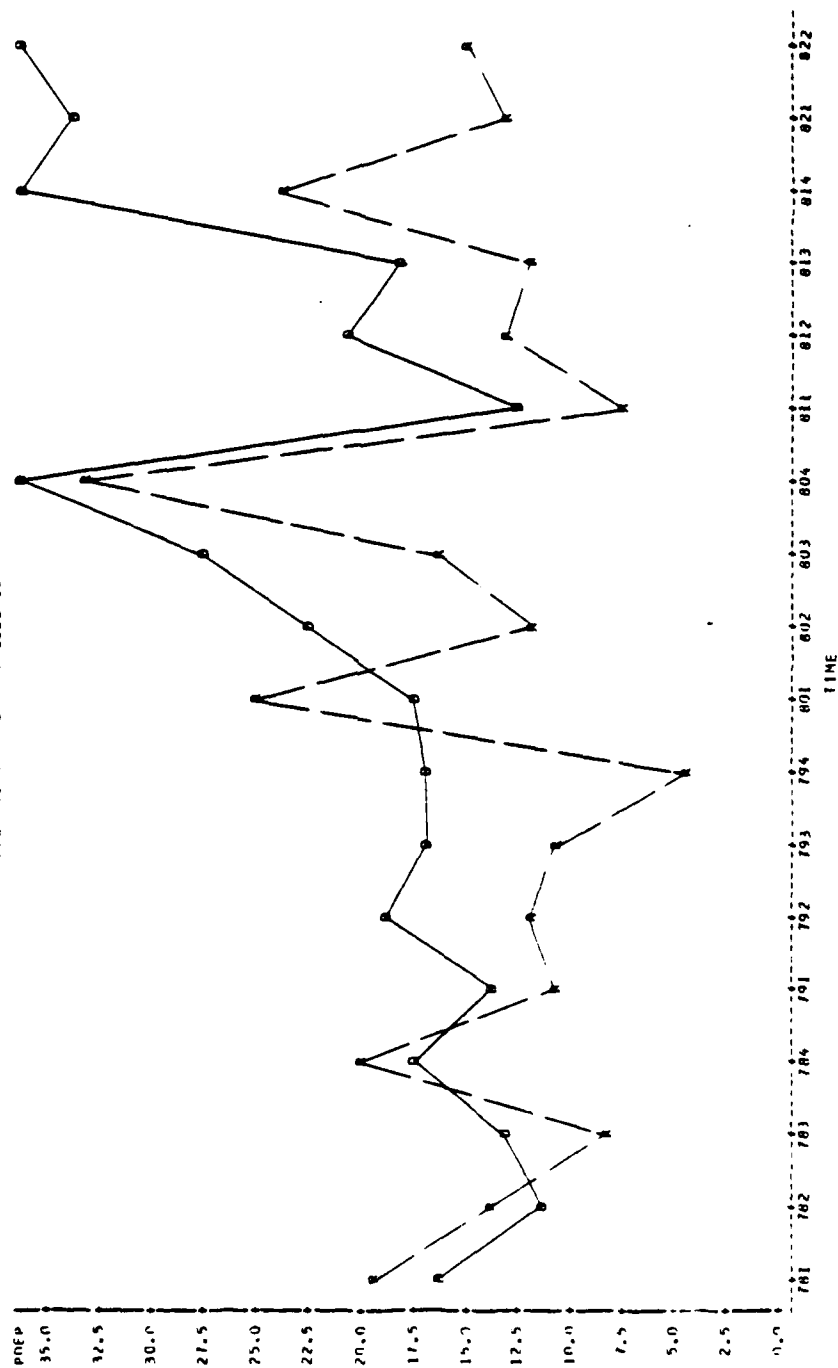
PLOT OF PUB+TIME  
PLOT OF PREP+TIME



AS 12 SPERRY

# STATISTICAL ANALYSIS SYSTEM

UIC-04628  
 PLOT OF PDEPOTIME SYMBOL USED IS D  
 PLOT OF PREPOTIME SYMBOL USED IS R



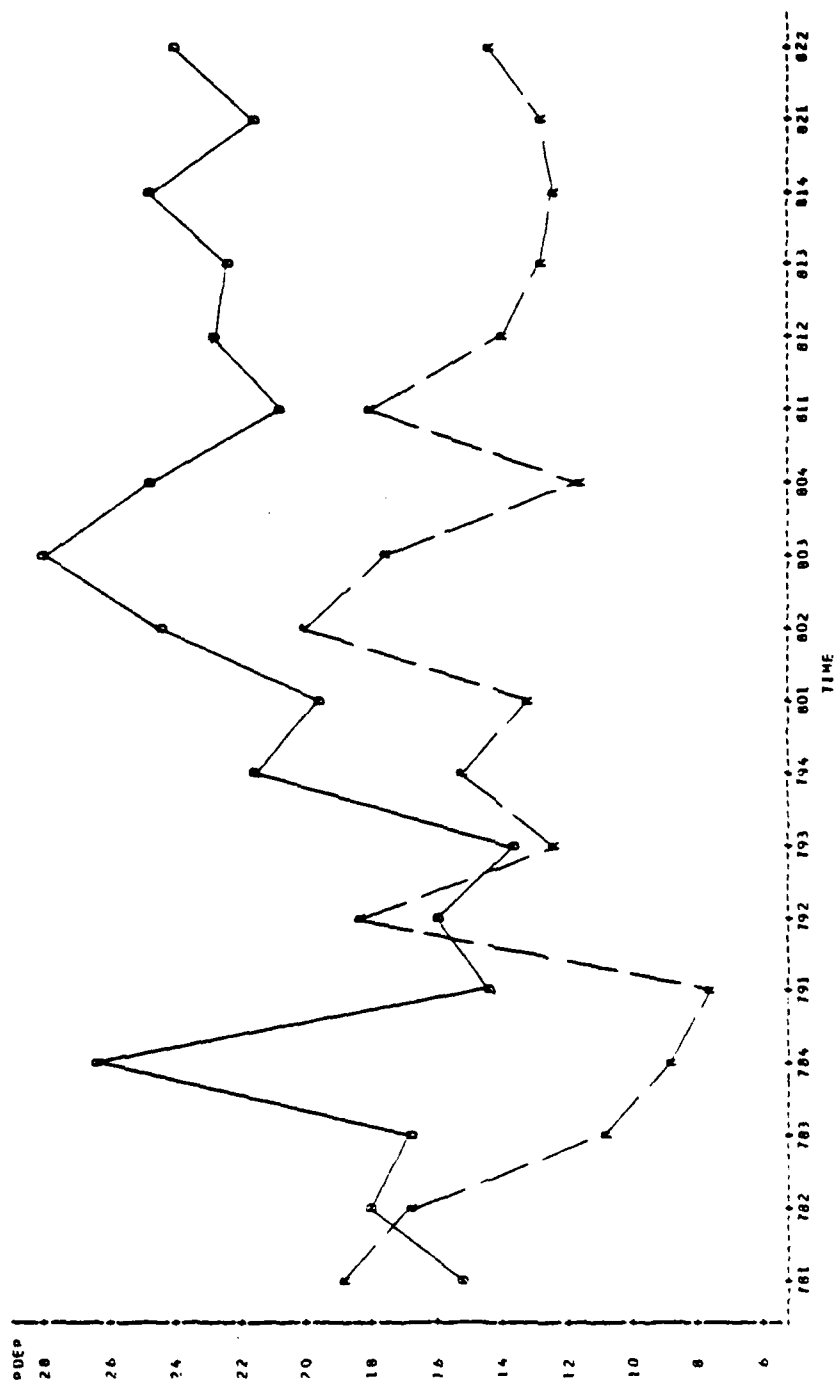
AS 18 ORION

# STATISTICAL ANALYSIS SYSTEM

UIC-04637

PLOT OF POSTTIME  
PLOT OF PRETIME

SYMBOL USED IS D  
SYMBOL USED IS R



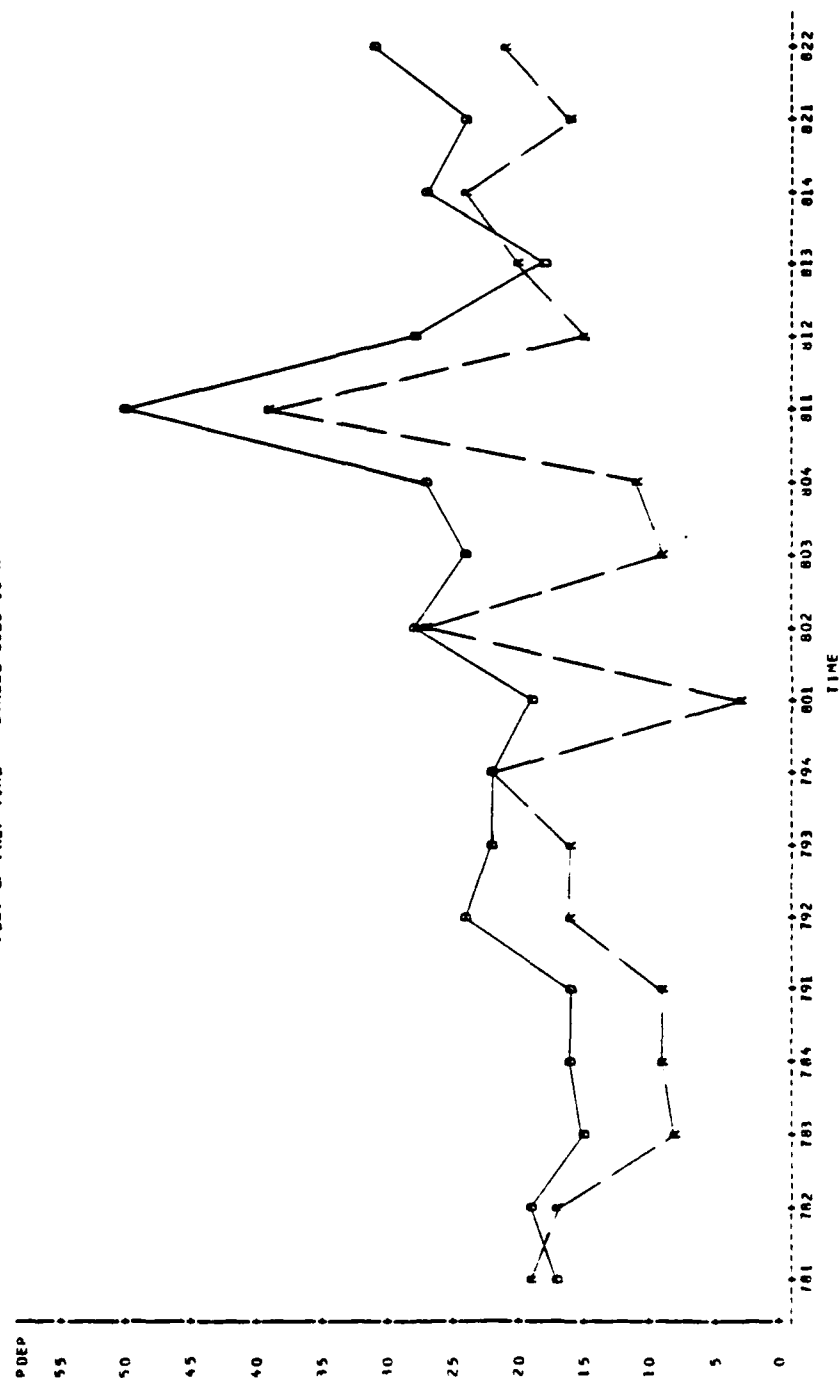
AD 17 PIEDMONT



# STATISTICAL ANALYSIS SYSTEM

UIC-04665

PLOT OF PDEP\*TIME SYMBOL USED IS D  
PLOT OF PREP\*TIME SYMBOL USED IS R

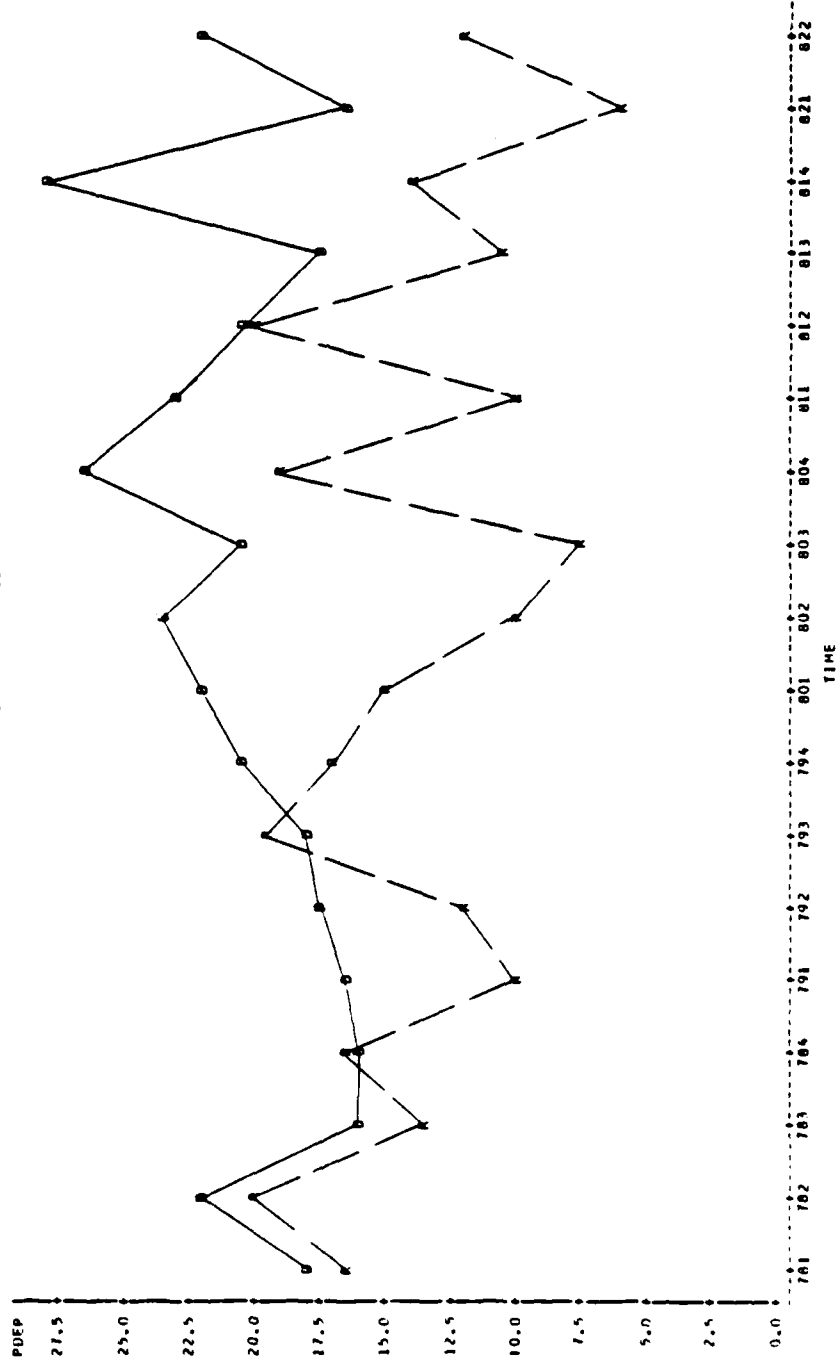


DDG 33 PARSONS

# STATISTICAL ANALYSIS SYSTEM

UIC-06666

PLOT OF PDEP TIME  
PLOT OF PDEP TIME  
SYMBOL USED 13 0  
SYMBOL USED 13 0

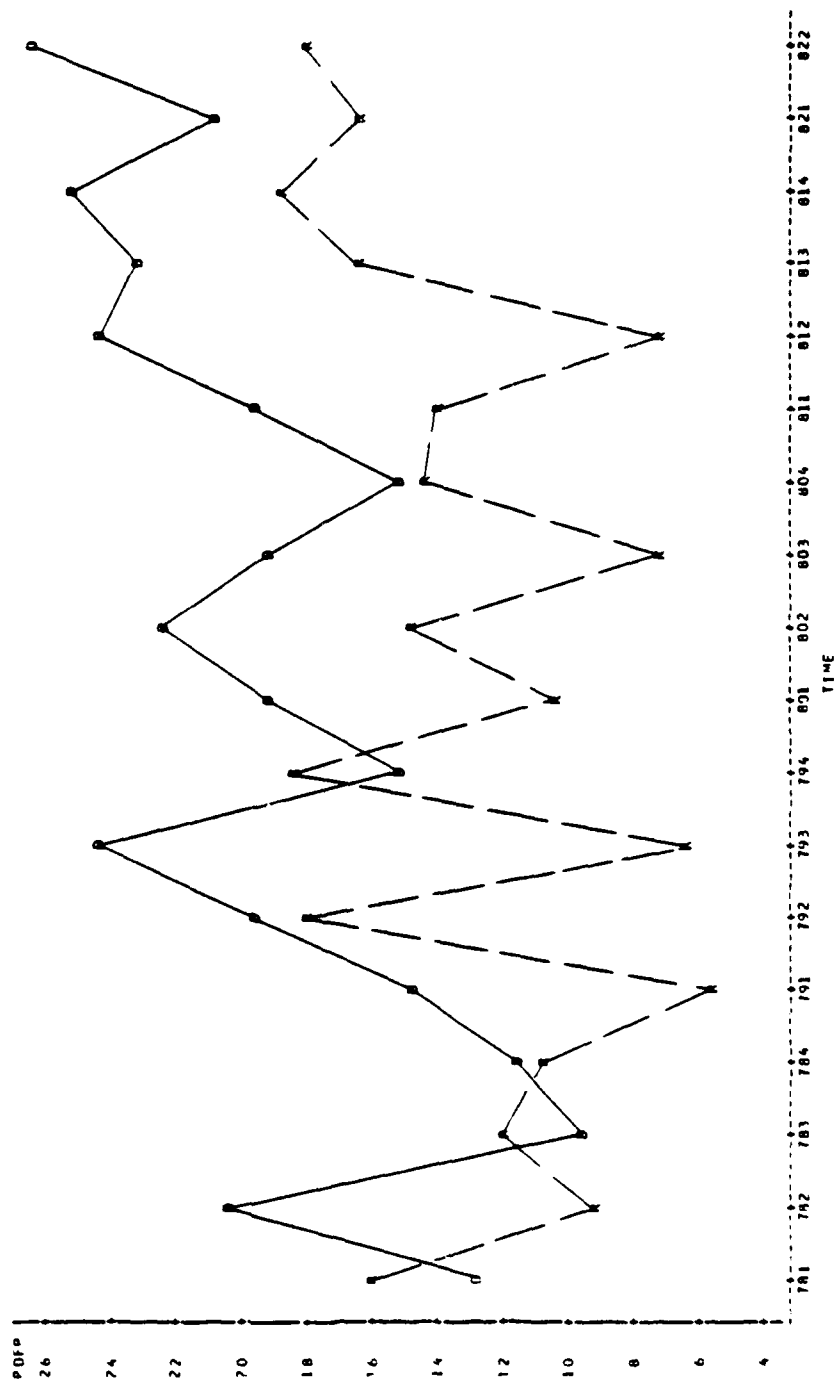


DD 950 RICHARD EDWARDS

# STATISTICAL ANALYSIS SYSTEM

UIC-04674

PLOT OF POSTTIME  
PLOT OF PRETIME  
SYMBOL USED IS D  
SYMBOL USED IS R



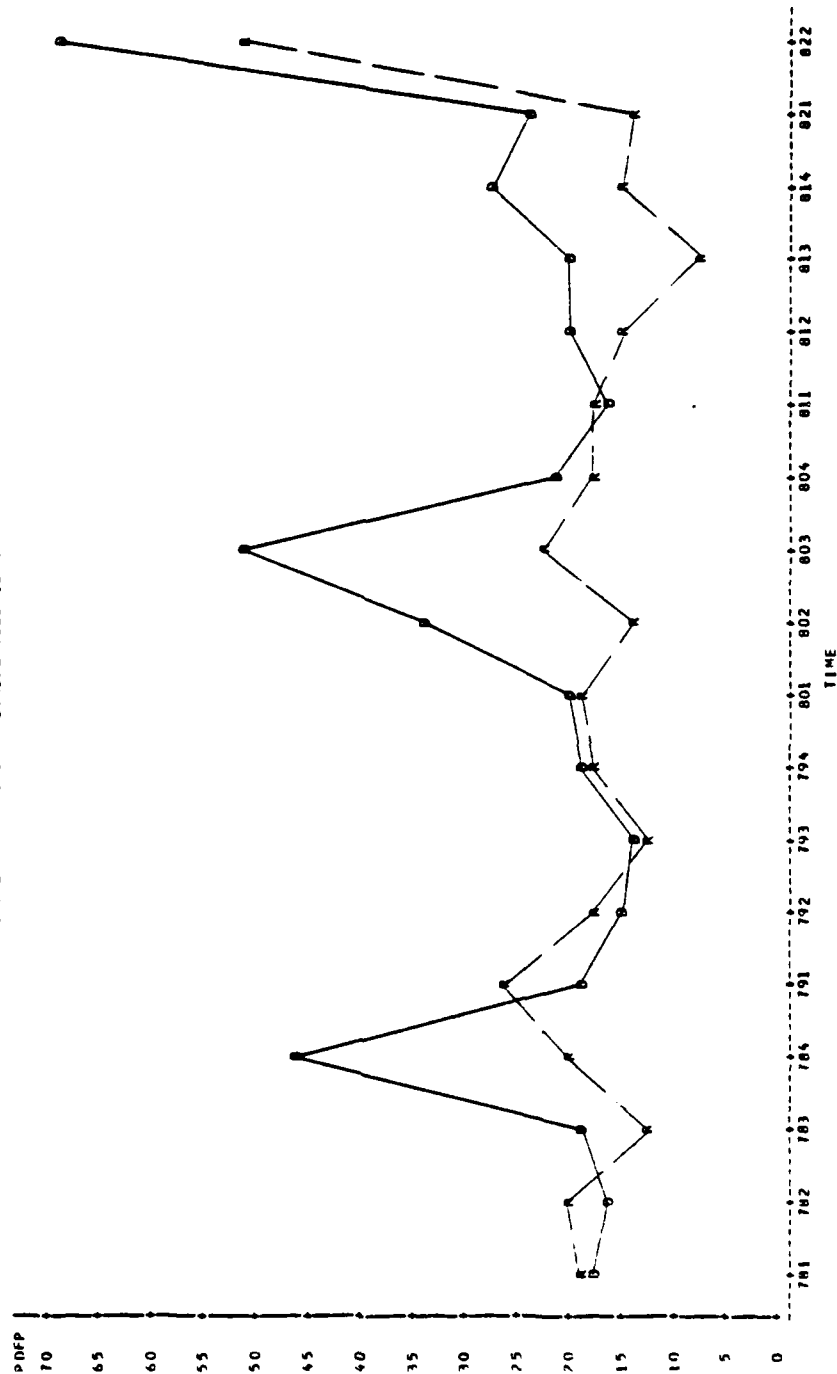
DDG 8 LYNDE MCCORMICK

# STATISTICAL ANALYSIS SYSTEM

UIC-04689

PLOT OF PDEPTIME  
PLOT OF PREPTIME

SYMBOL USED IS O  
SYMBOL USED IS R

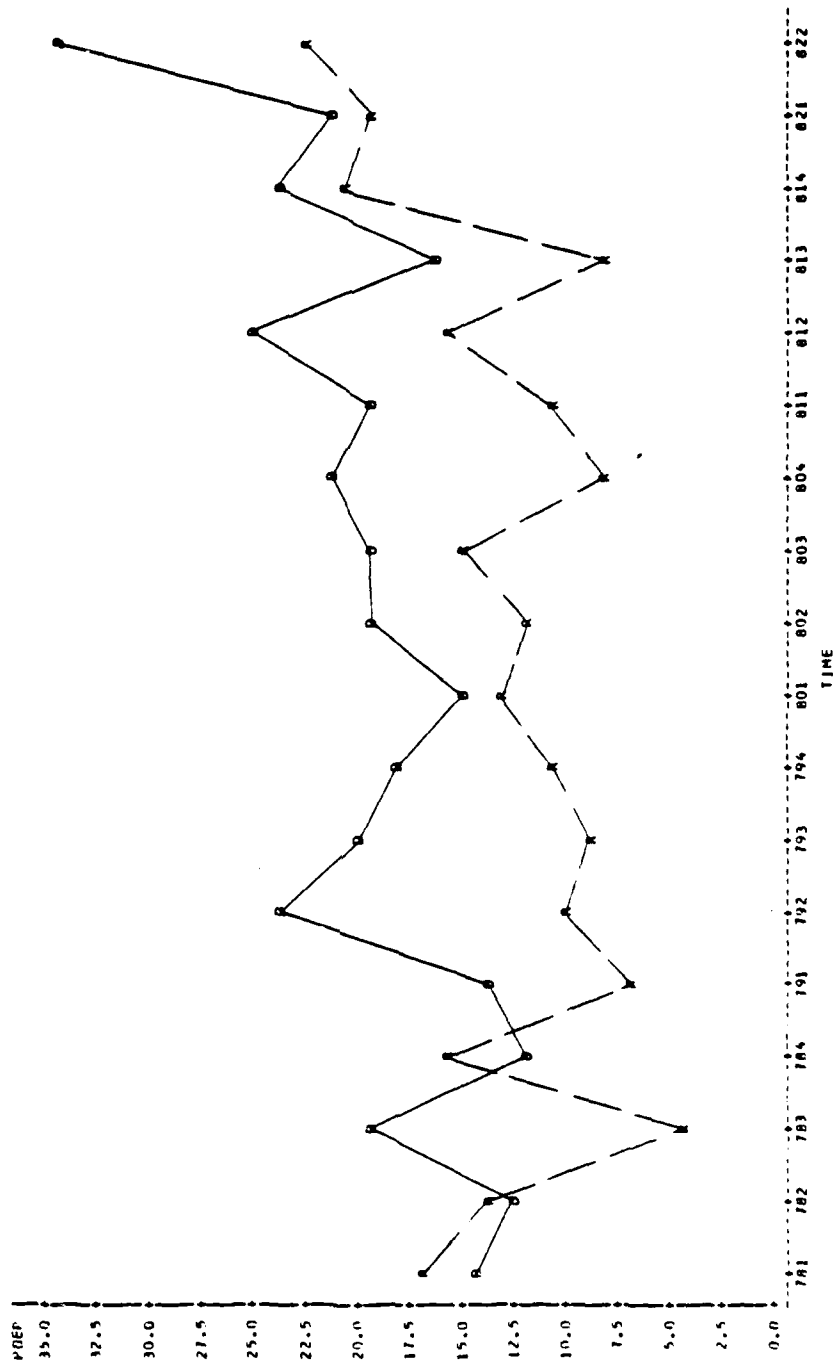


AS 31 HUNLEY

# STATISTICAL ANALYSIS SYSTEM

UJC-04698

PLOT OF PDEP\*TIME SYMBOL USED IS D  
PLOT OF PREP\*TIME SYMBOL USED IS R

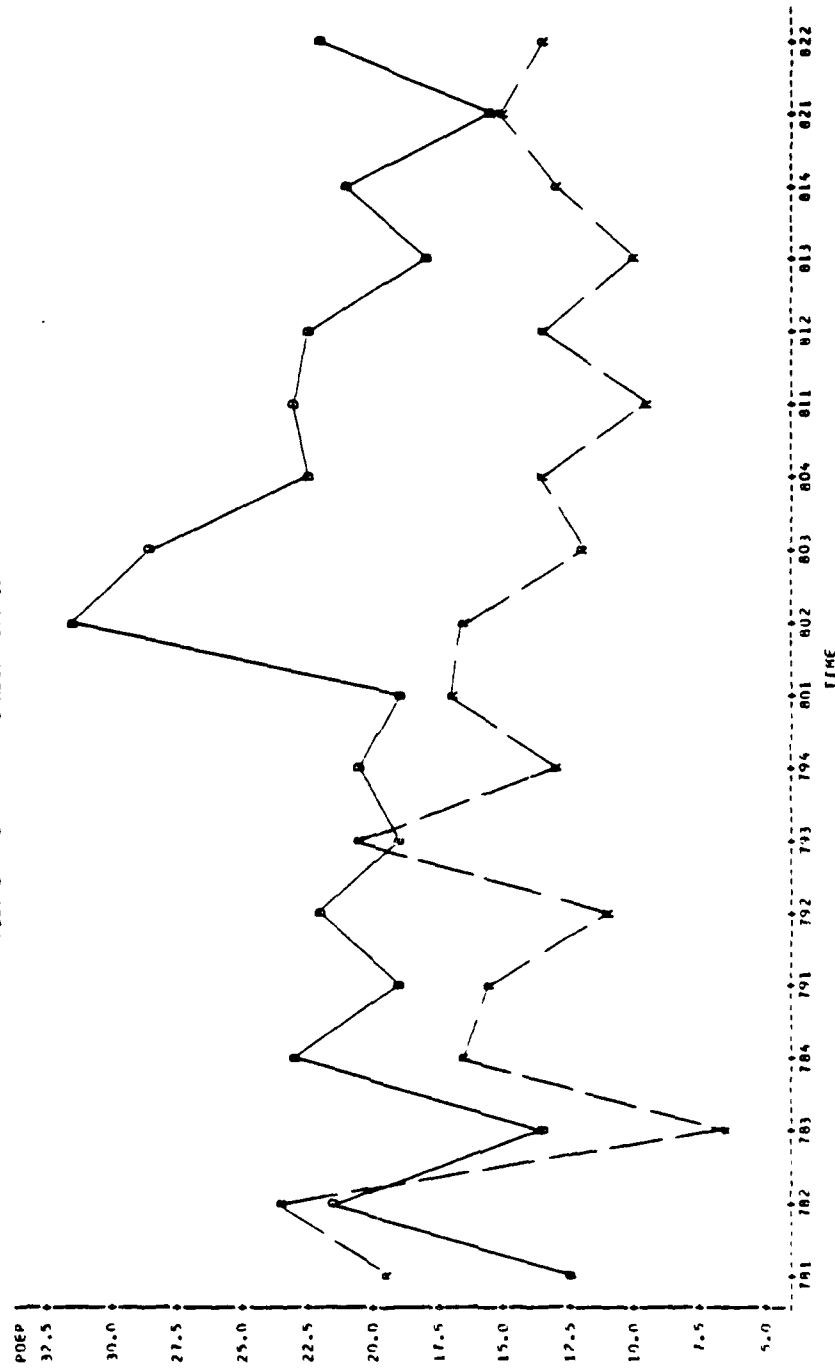


FFG 5 RICHARD L PAGE

STATISTICAL ANALYSIS SYSTEM

UIC-04951

PLOT OF PREP TIME SYMBOL USED IS R



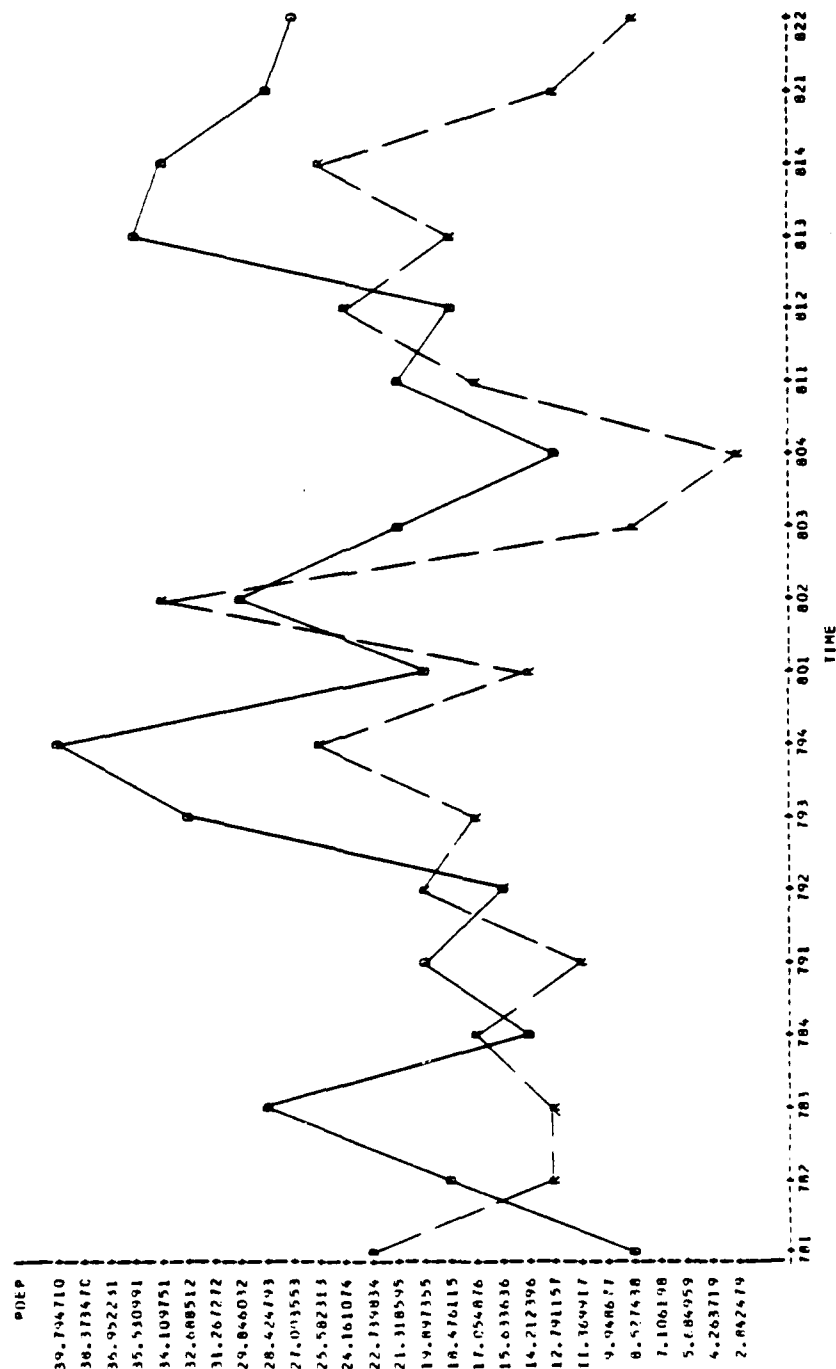
AO 51 ASHTABULA

# STATISTICAL ANALYSIS SYSTEM

UIC-05604

PLOT OF PUEP+TIME  
PLOT OF PREP+TIME

SYMBOL USED IS R  
SYMBOL USED IS R

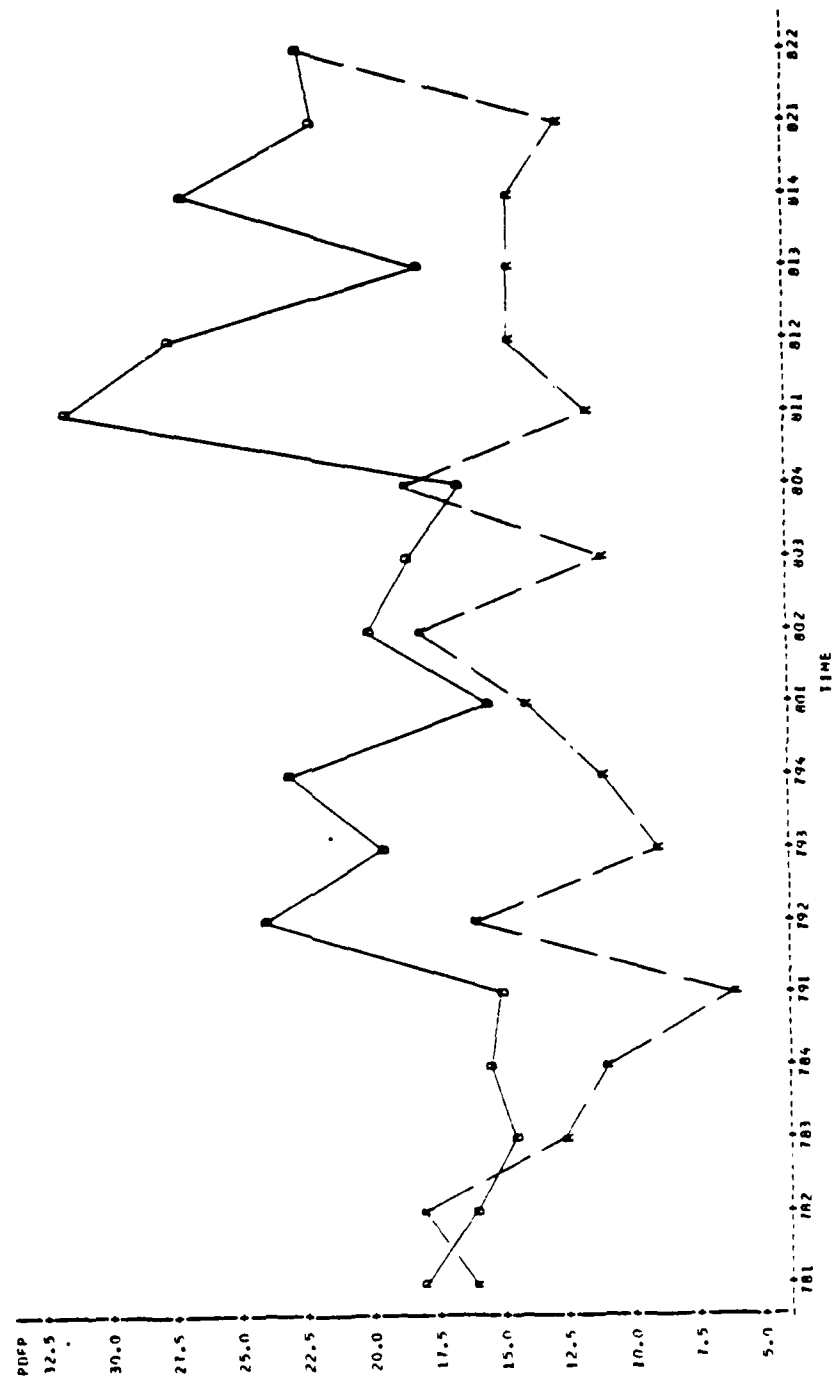


SS 581 BLUEBACK

# STATISTICAL ANALYSIS SYSTEM

UIC-05833

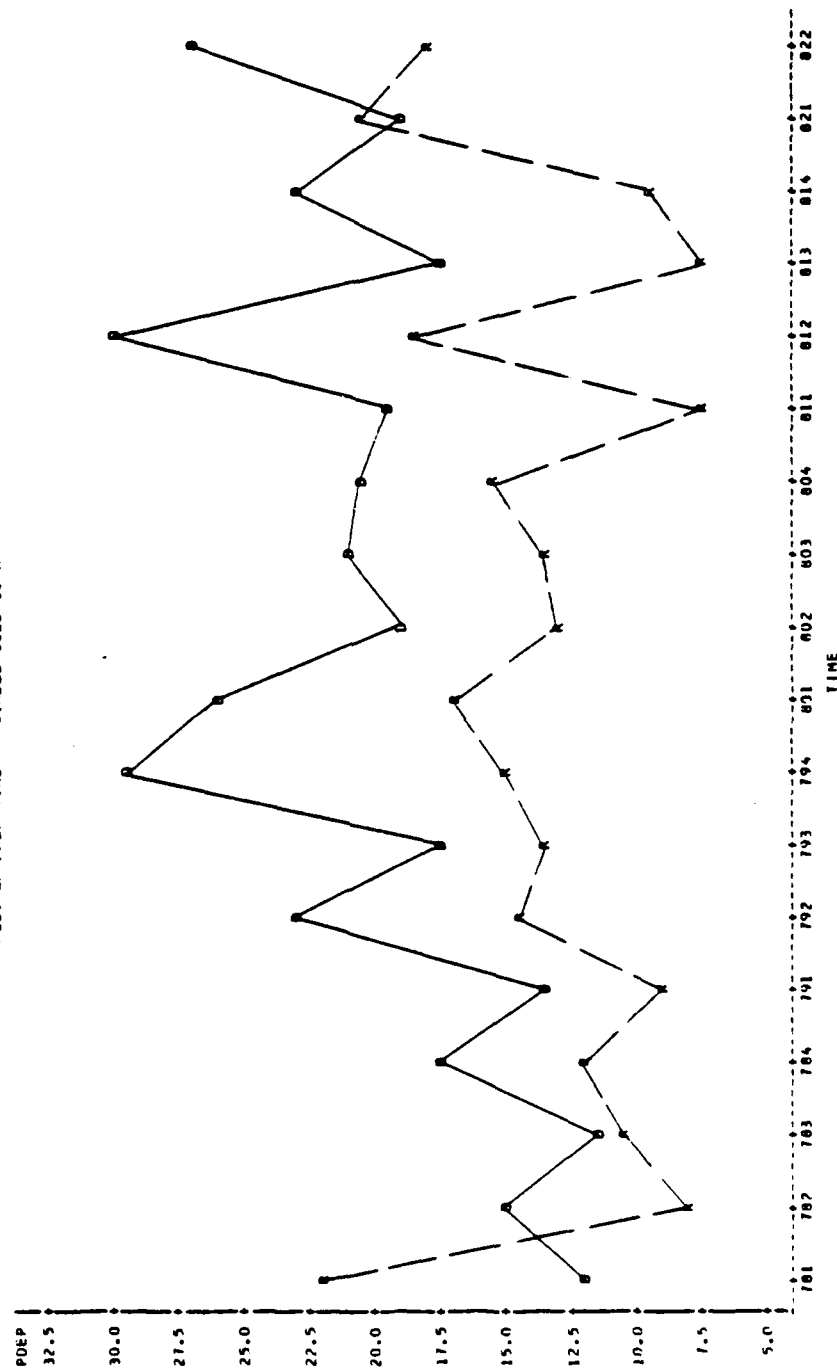
PLOT OF PREPOTIME  
SYMBOL USED IS O  
PLOT OF PREPOTIME  
SYMBOL USED IS R



AOE 2 CAMDEN



STATISTICAL ANALYSIS SYSTEM  
UIC-05836  
PLOT OF PREP TIME SYMBOL USED IS R

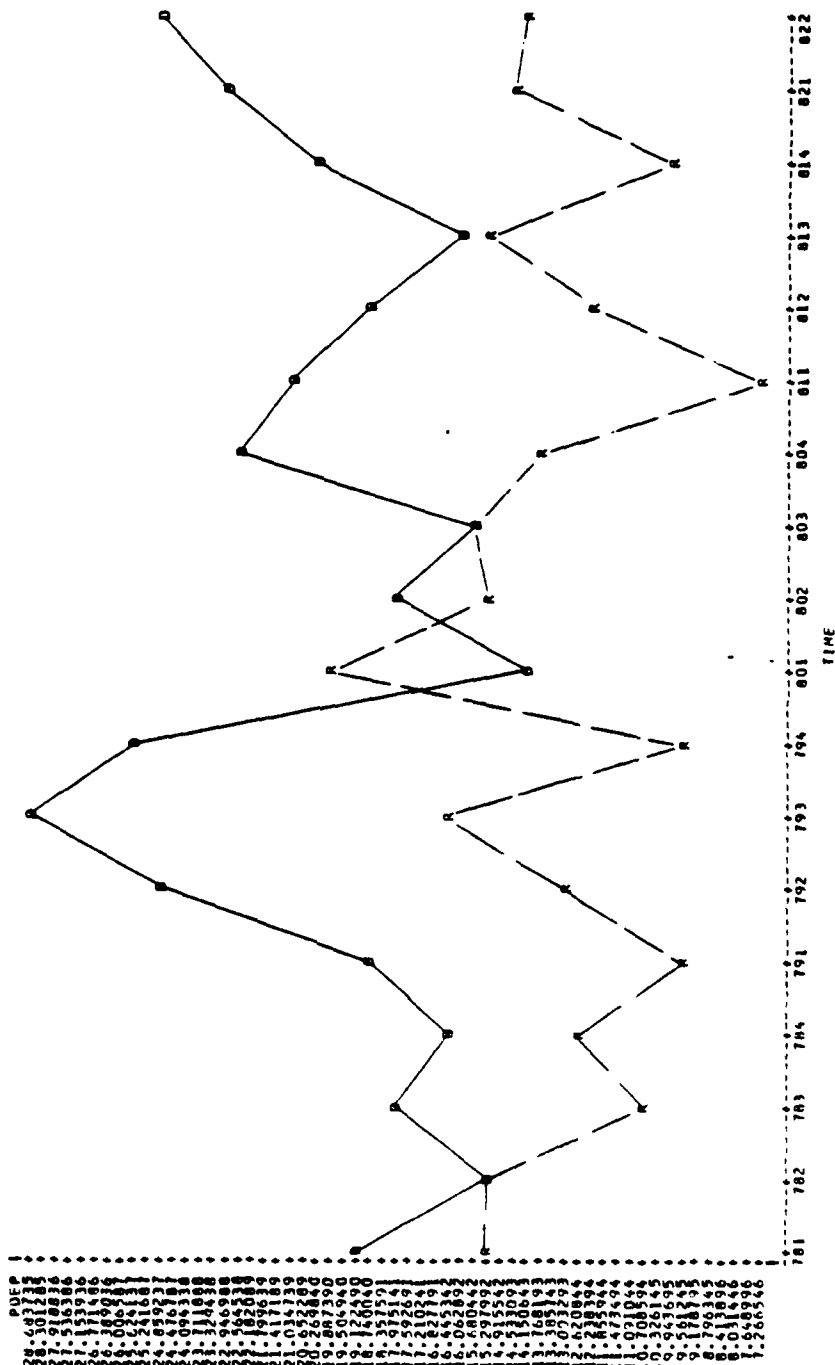


AFS 5 CONCORD

# STATISTICAL ANALYSIS SYSTEM

UIC-05847

PLOT OF PREP TIME SYMBOL USED IS R

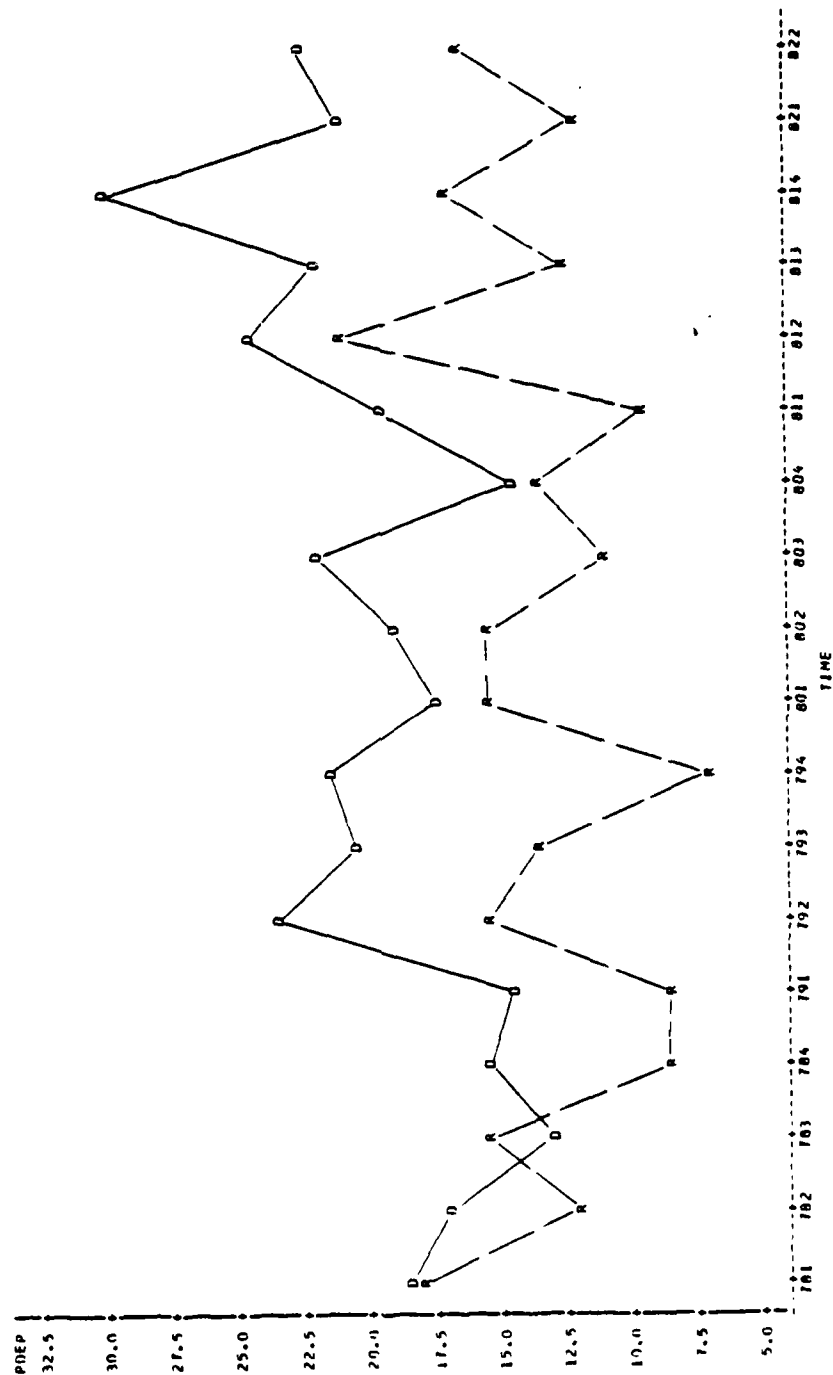


LKA 116 ST LOUIS

# STATISTICAL ANALYSIS SYSTEM

UIC-07103

PLOT OF PREP TIME SYMBOL USED IS D  
PLOT OF PREP TIME SYMBOL USED IS R



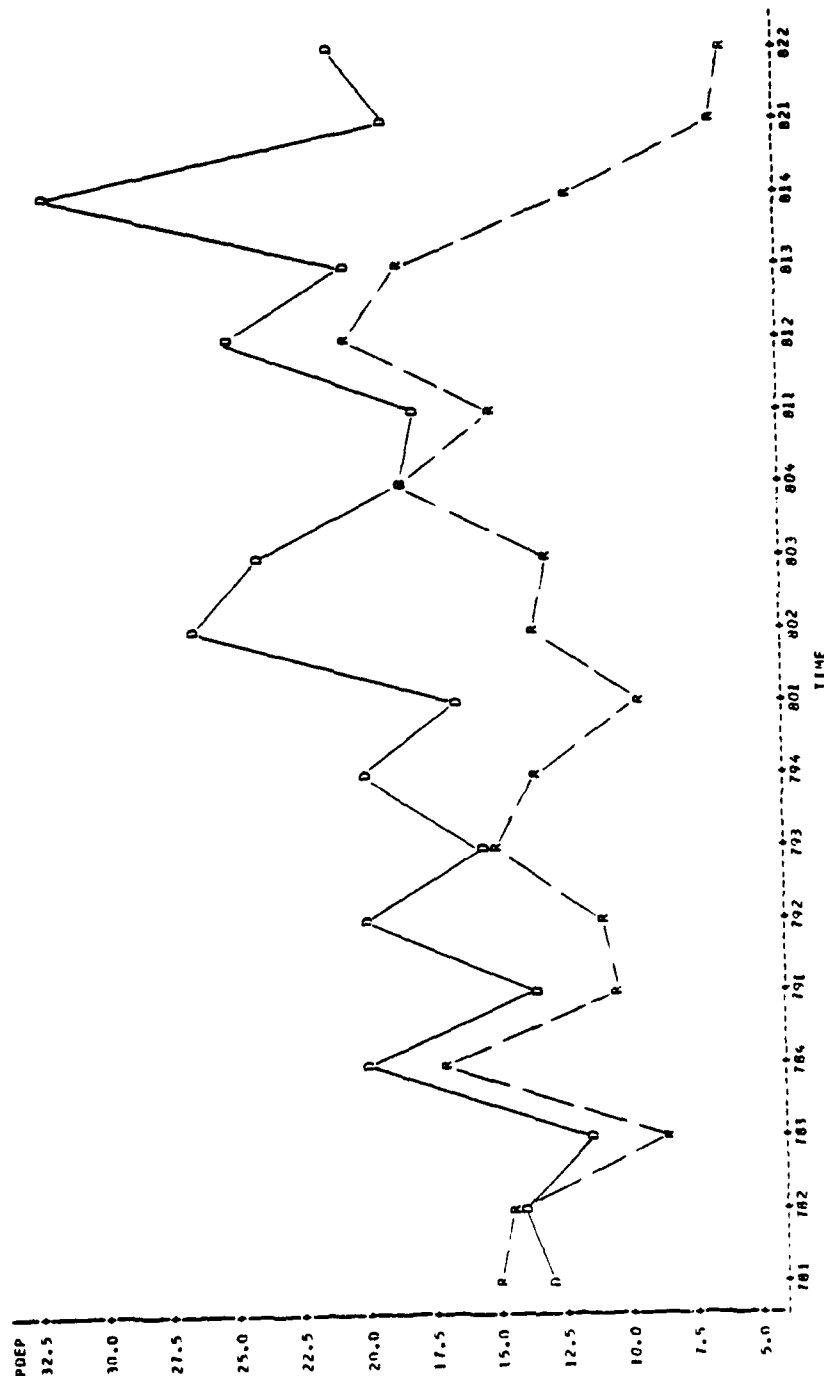
LPD 9 DENVER

# STATISTICAL ANALYSIS SYSTEM

UIC-07351

PLOT OF PREPOTIME  
PLOT OF PREPOTIME

SYMBOL USED IS D  
SYMBOL USED IS R

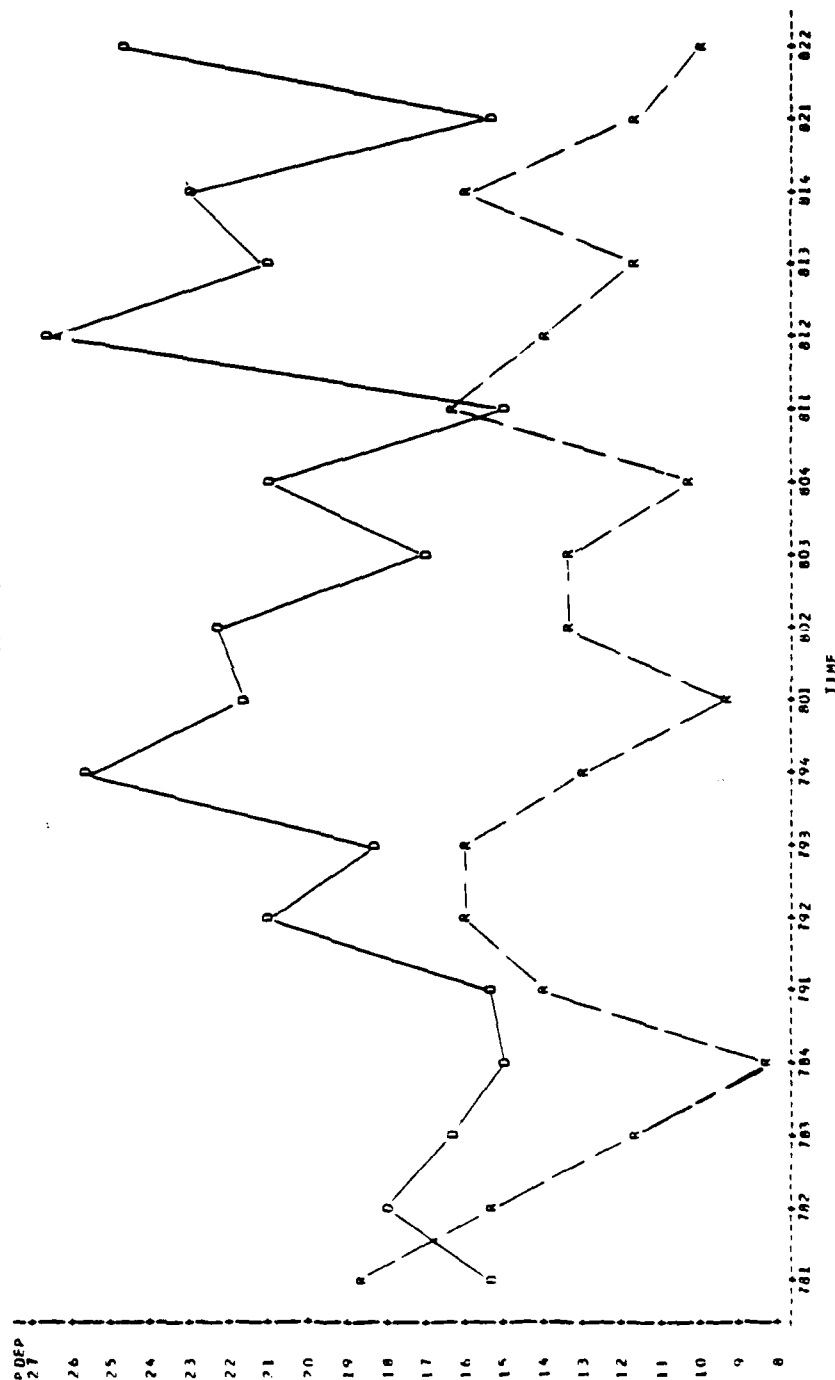


LPH 3 OKINAWA

STATISTICAL ANALYSIS SYSTEM

UIC-08808

PLOT OF PROPORTION  
SYMBOL USED IS R

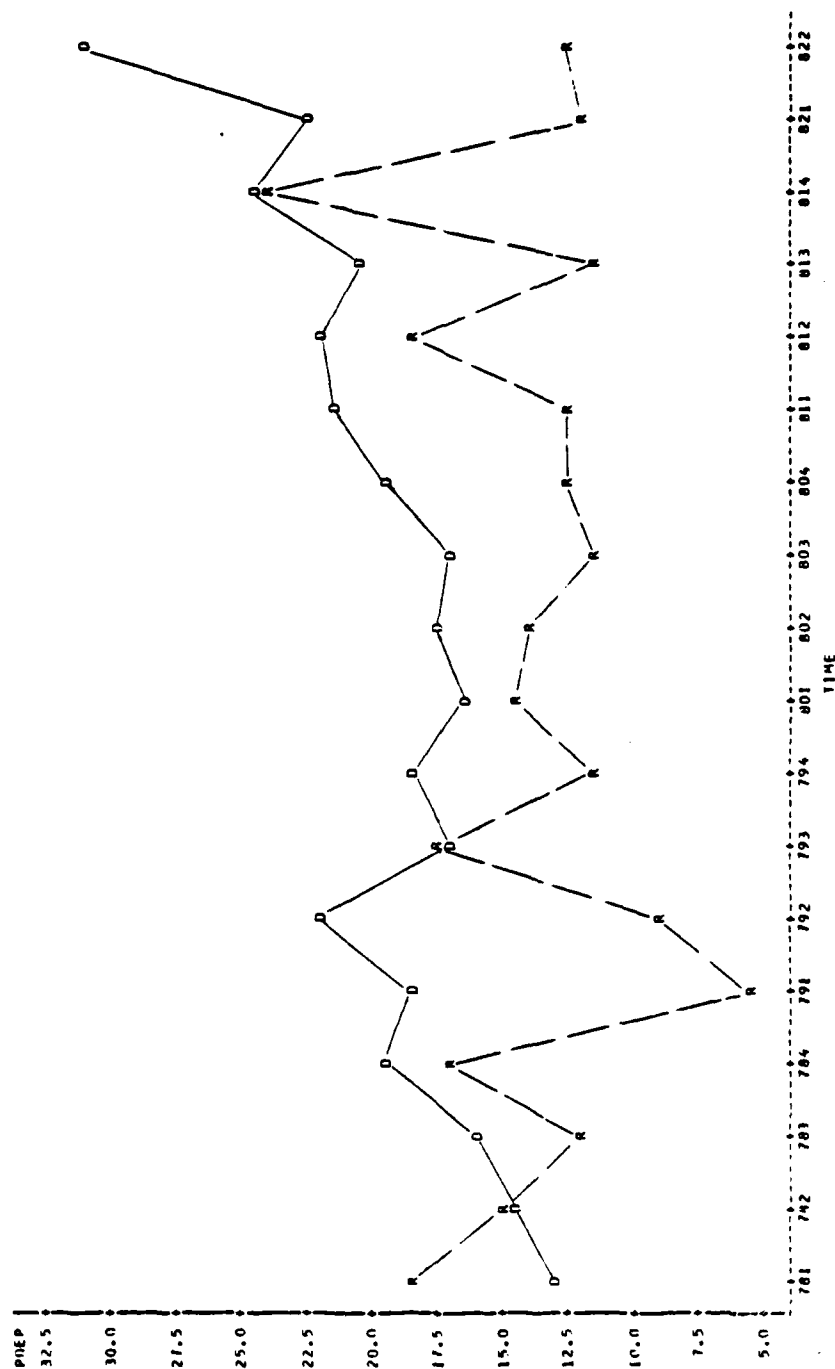


AR 5 VULCAN

# STATISTICAL ANALYSIS SYSTEM

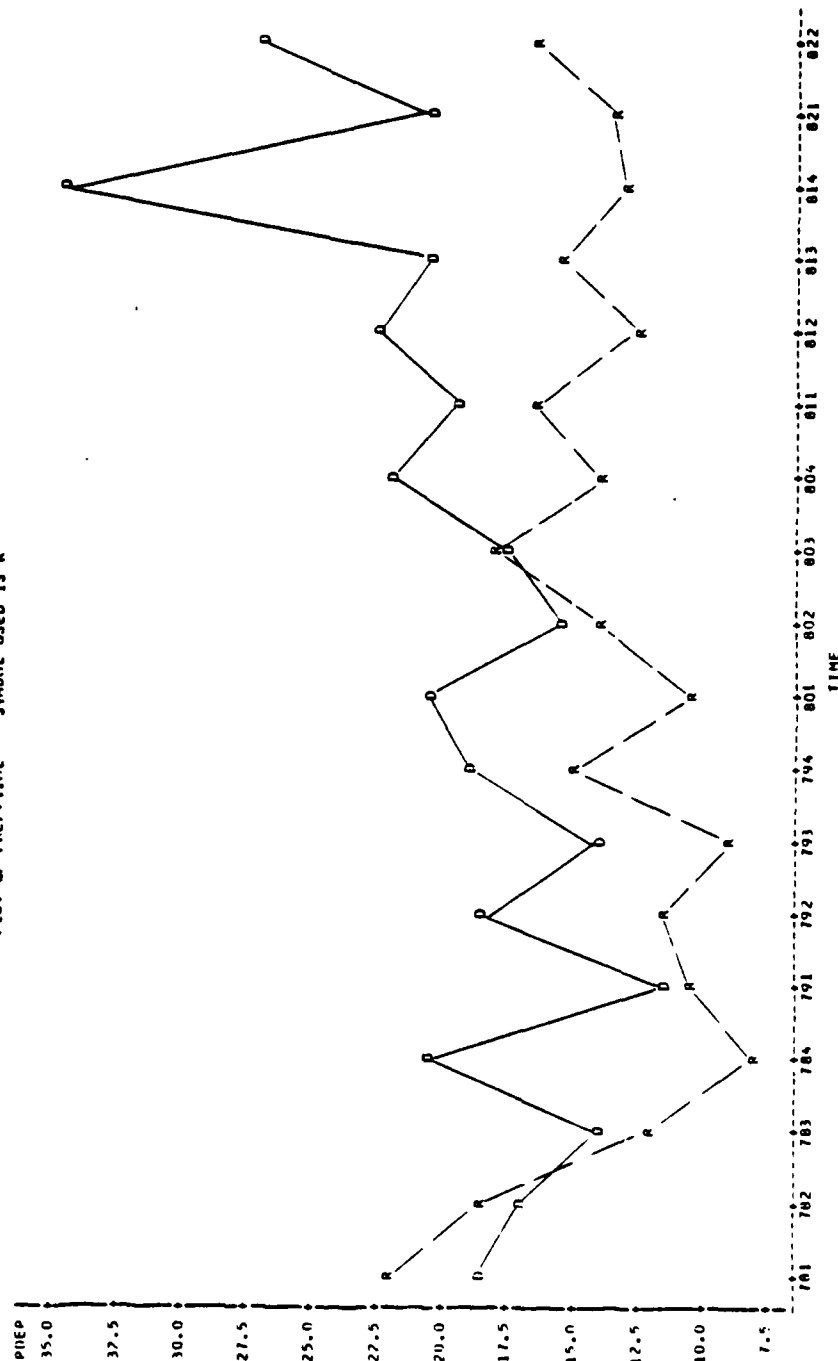
UIC-08809

PLOT OF PREPOTIME SYMBOL USED IS D



AR 7 HECTOR

STATISTICAL ANALYSIS SYSTEM  
 UIC-20012  
 PLOT OF PREP TIME SYMBOL USED IS R

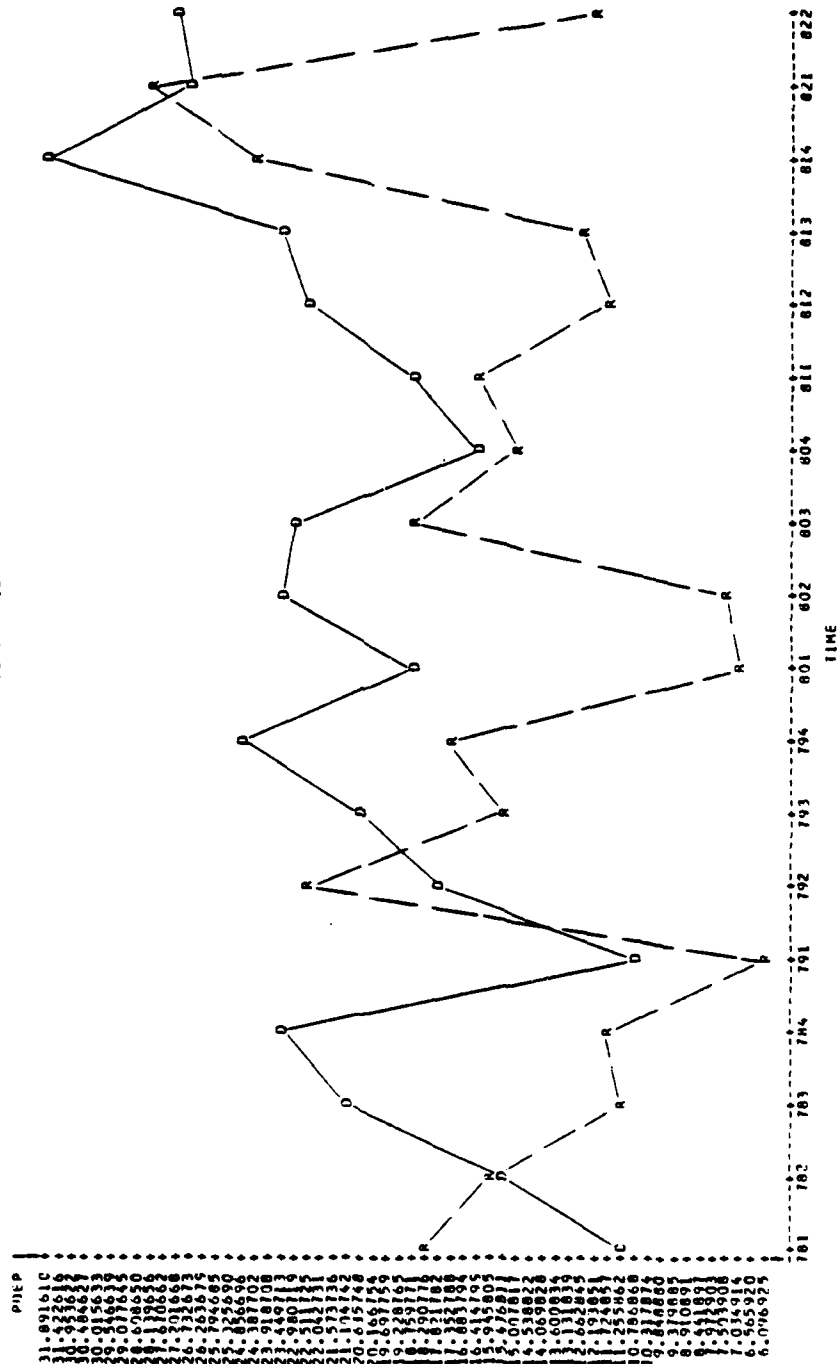


LSD 37 PORTLAND

# STATISTICAL ANALYSIS SYSTEM

UIC-20050

PLOT OF PDEP\*TIME SYMBOL USED IS D  
PLOT OF PREP\*TIME SYMBOL USED IS R



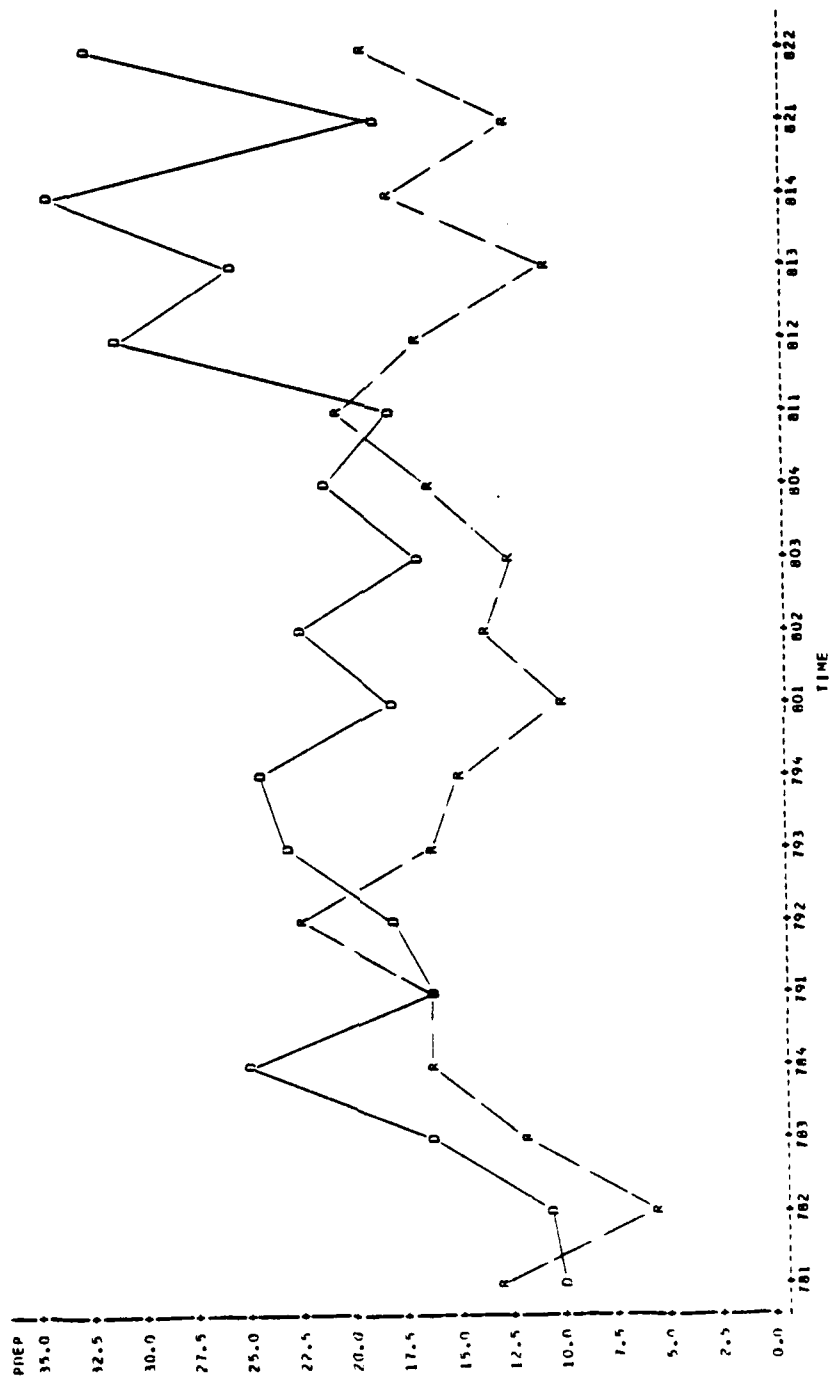
FF 1079 BOWEN



# STATISTICAL ANALYSIS SYSTEM

UIC-20098

PLOT OF PREPOTIME  
PLOT OF PREPOTIME  
SYMBOL USED IS D  
SYMBOL USED IS R

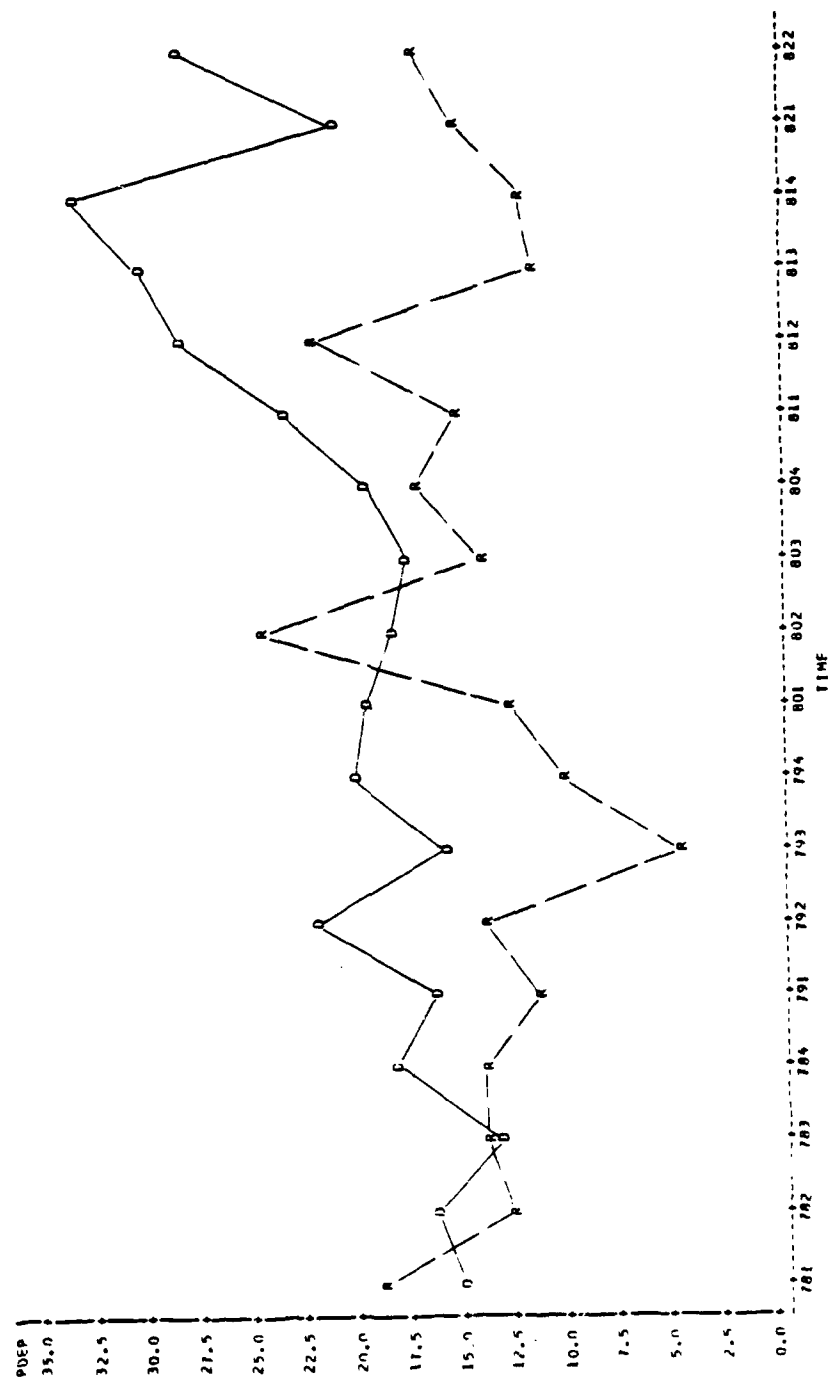


FF 1087 KIRK

STATISTICAL ANALYSIS SYSTEM

UIC-20112

PLOT OF PREP TIME  
SYMBOL USED IS R



AE 29 MOUNT HOOD

AD-A125 733

AN ANALYSIS OF THE EFFECT OF PERSONNEL TURBULENCE ON  
THE PERFORMANCE OF OPERATIONAL UNITS(U) NAVAL  
POSTGRADUATE SCHOOL MONTEREY CA W R REEVES DEC 82

2/2

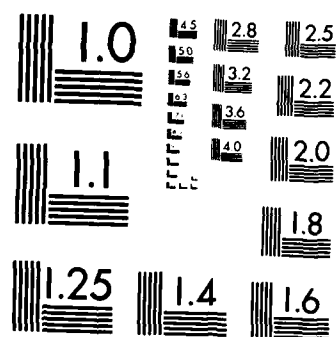
F/G 5/9

NL

UNCLASSIFIED

END

FILED  
JAN  
83



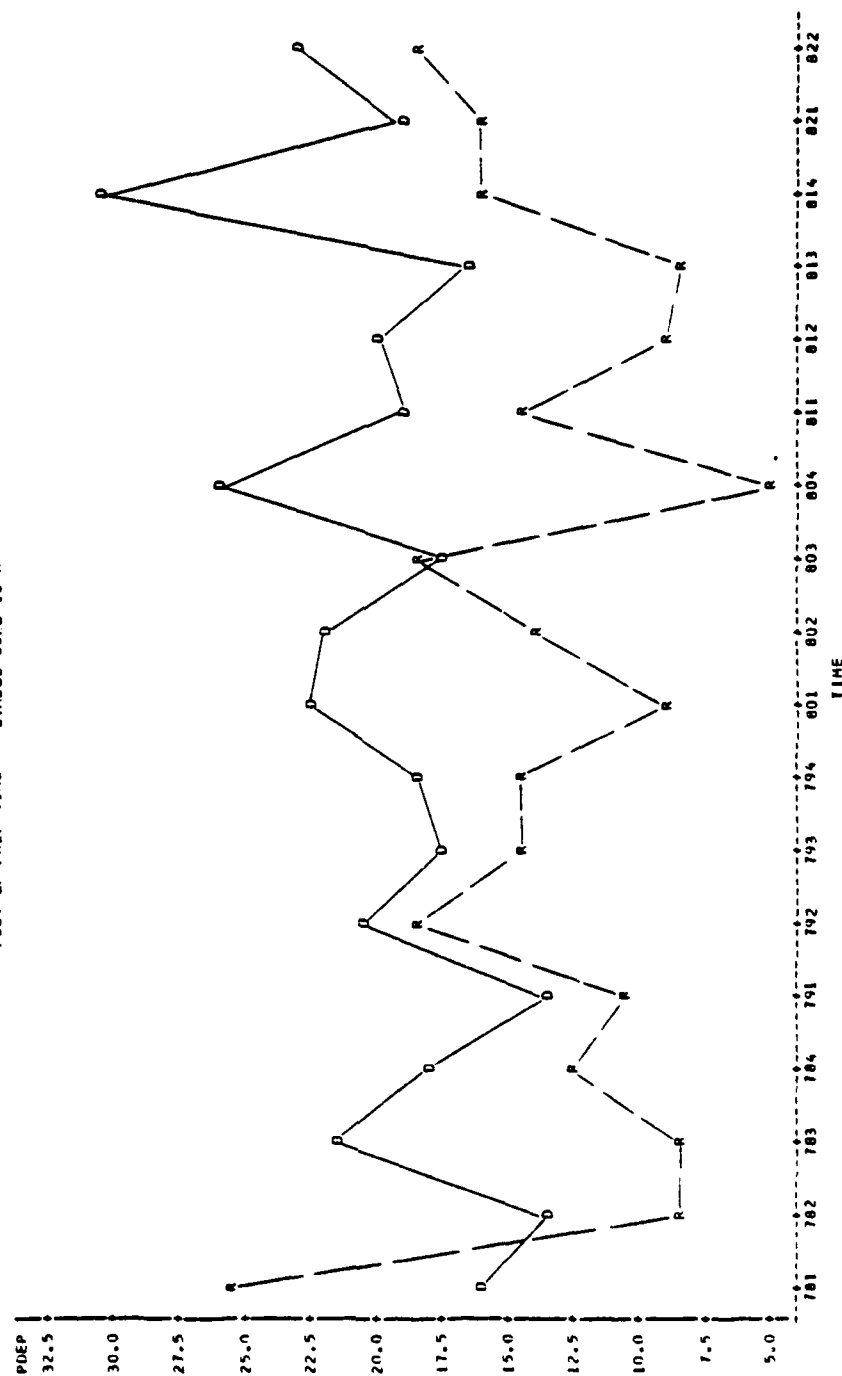
MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS 1963 A

# STATISTICAL ANALYSIS SYSTEM

UIC-20123

PLOT OF PUEPOTIME  
PLOT OF PREPOTIME

SYMBOL USED IS D  
SYMBOL USED IS R

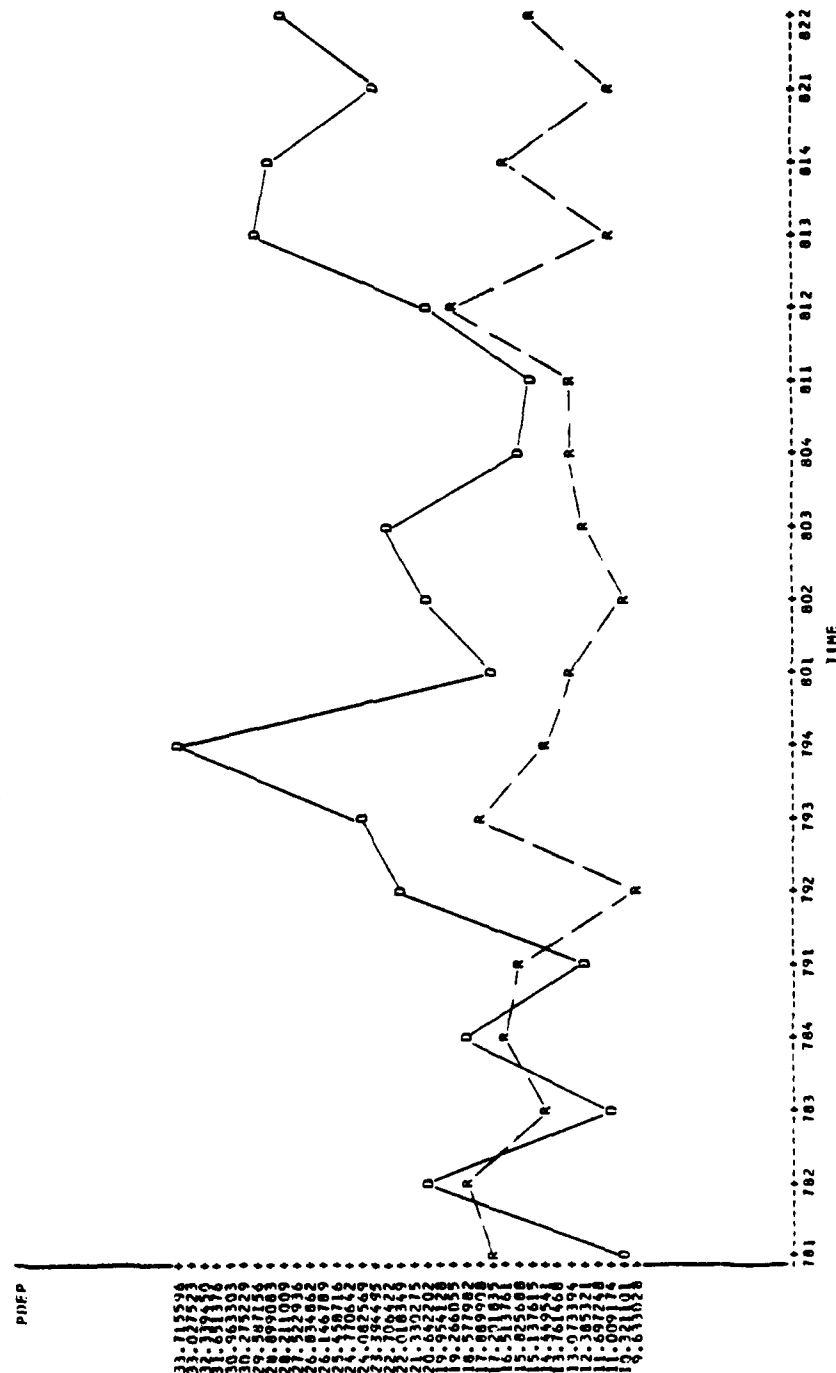


AOR 4 SAVANNAH

# STATISTICAL ANALYSIS SYSTEM

UIC-20143

PLOT OF PREP TIME SYMBOL USED IS R

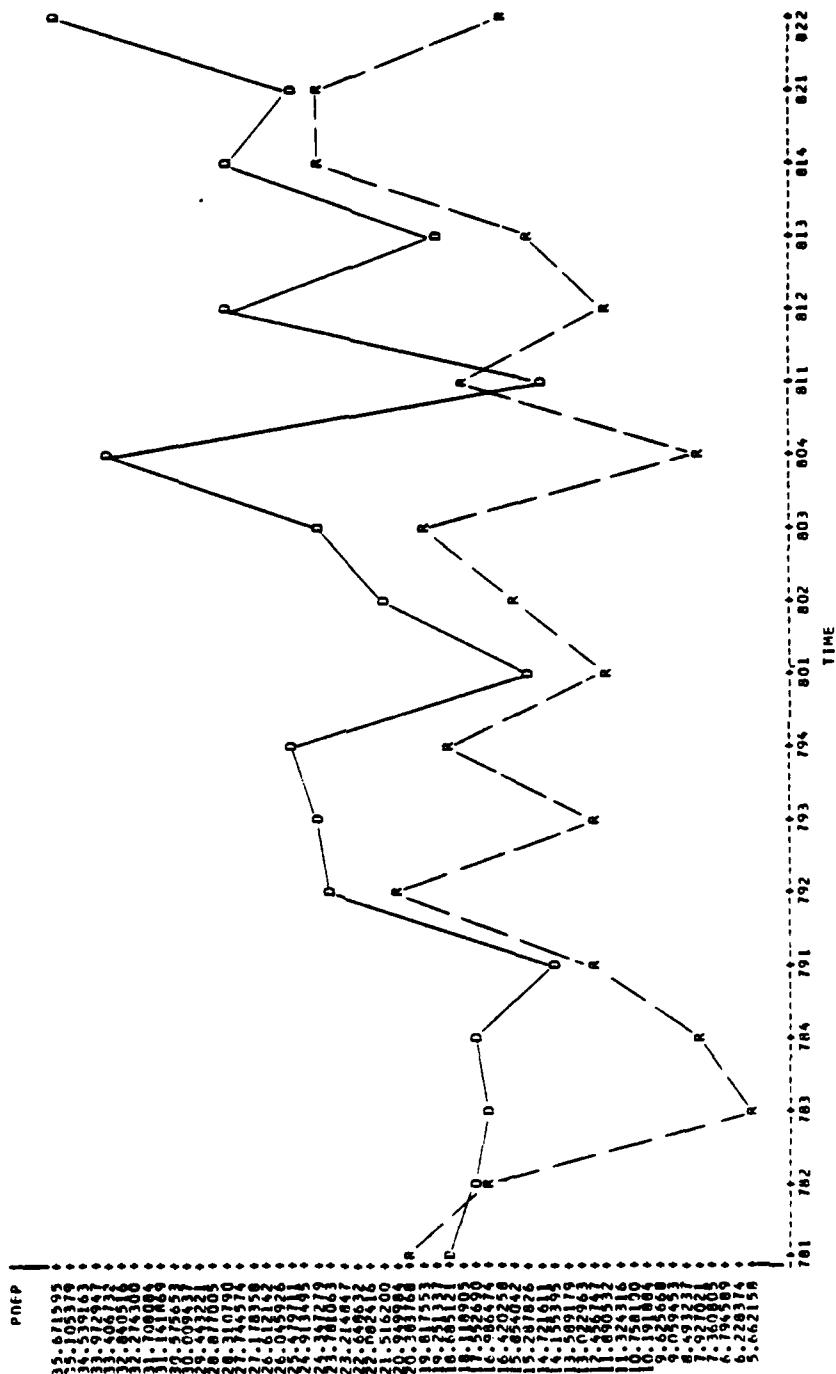


ASR 21 PIGEON

# STATISTICAL ANALYSIS SYSTEM.

UIC-20223

PLOT OF PREP:TIME SYMBOL USED IS R

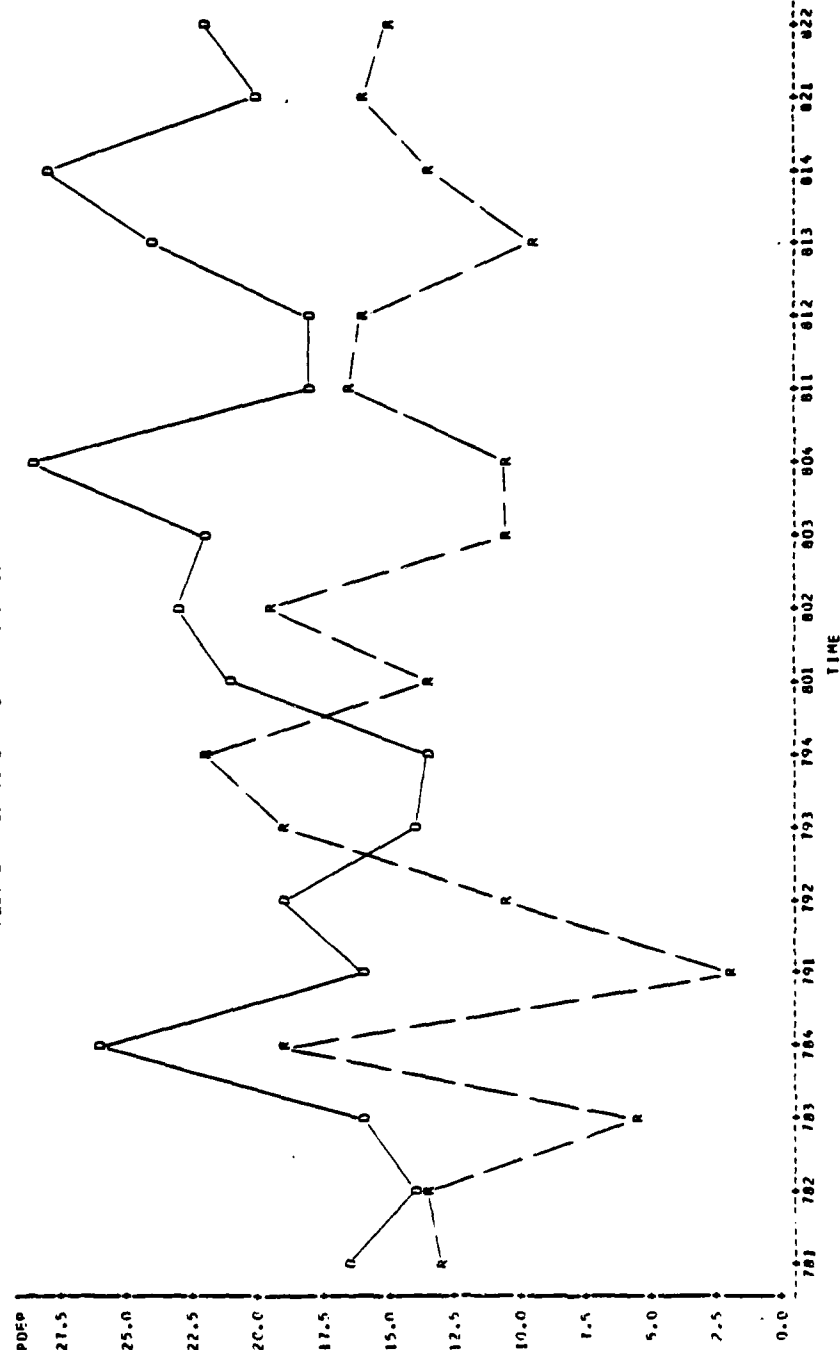


LST 1197 BARNSTABLE CTY

# STATISTICAL ANALYSIS SYSTEM

UIC-20576

PLOT OF PDEPOTIME  
PLOT OF PREPOTIME



DD 965 KINKAID

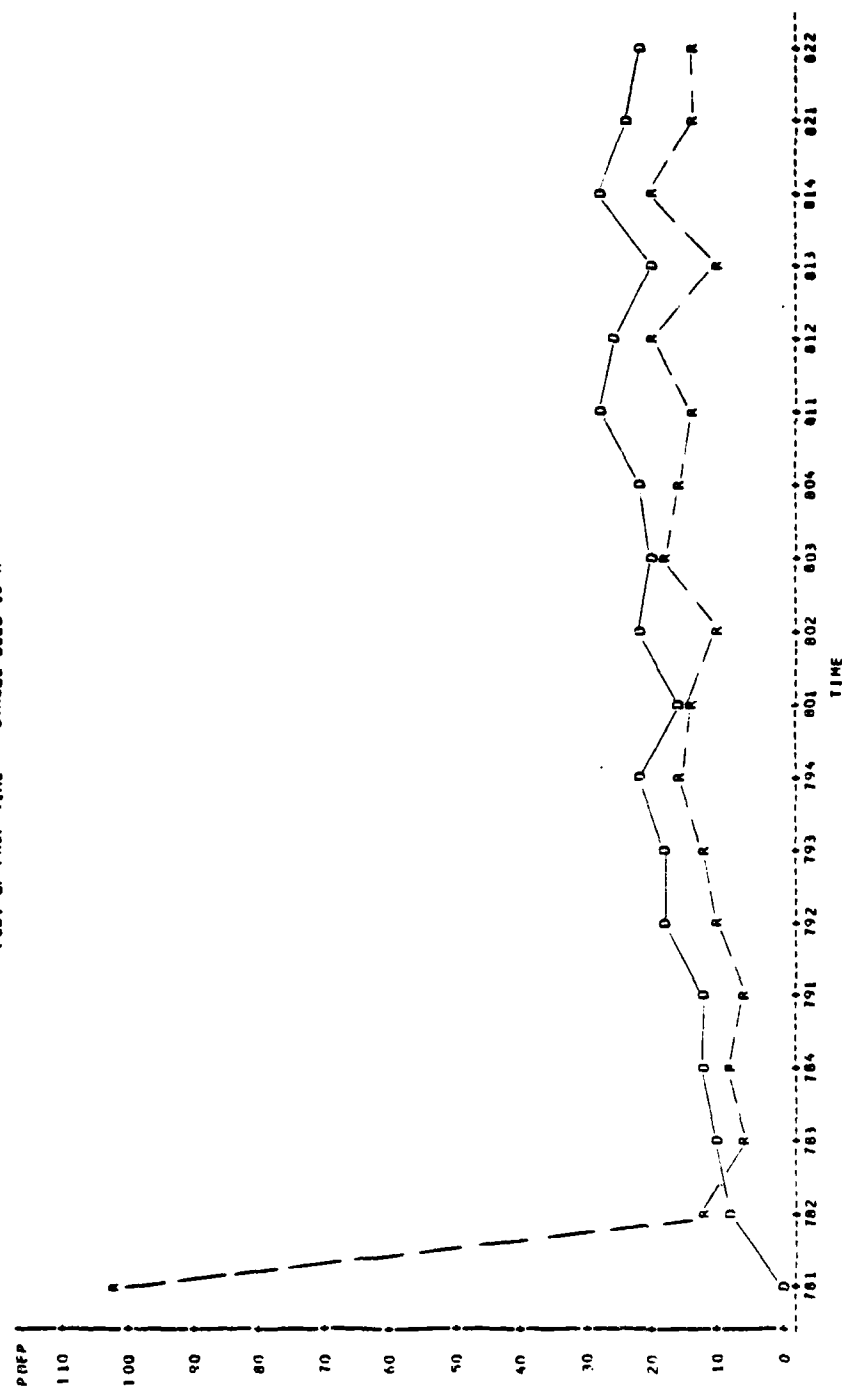


# STATISTICAL ANALYSIS SYSTEM

UIC-20632

PLOT OF PREP+TIME  
PLOT OF PREP+TIME

SYMBOL USED IS D  
SYMBOL USED IS R

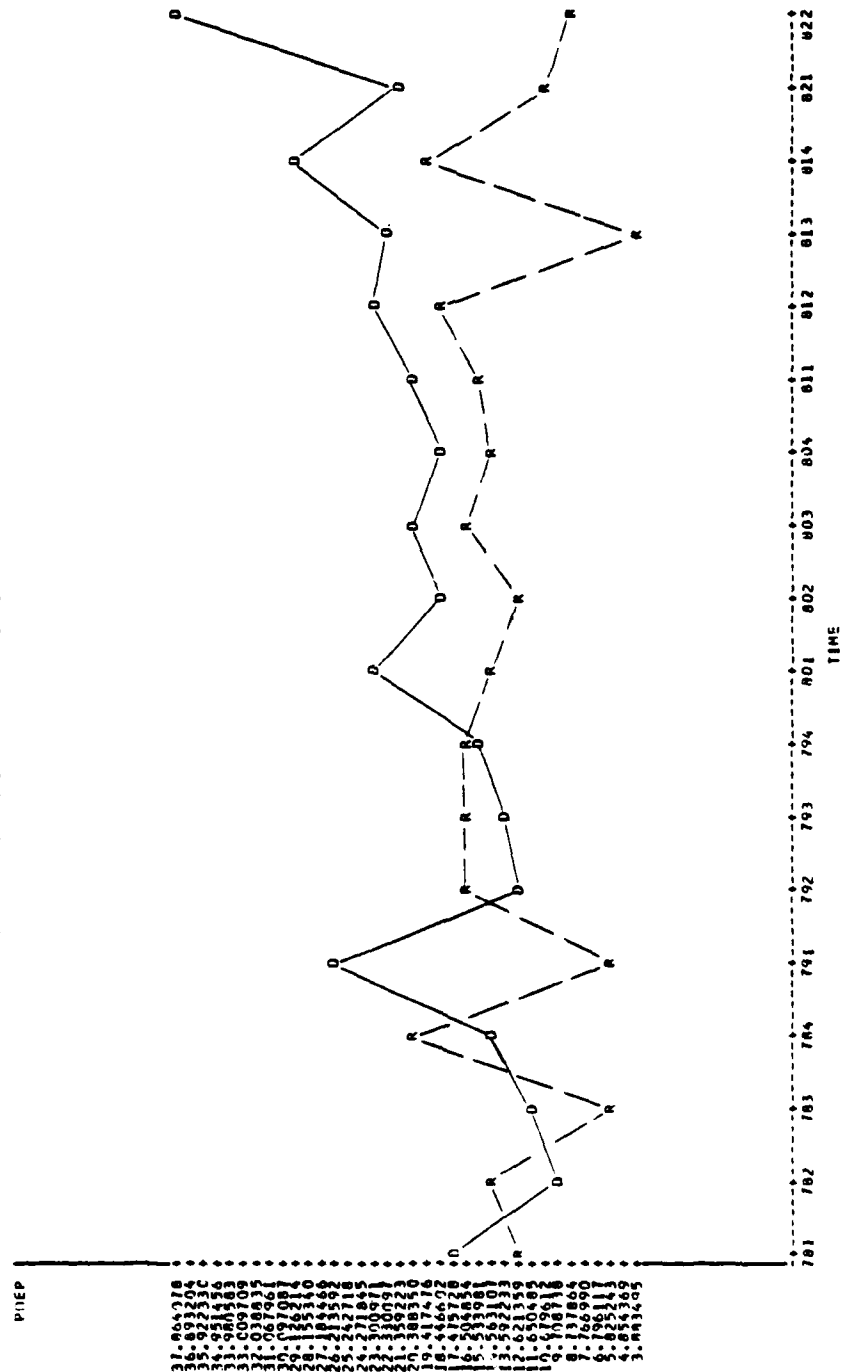


LHA 2 SAIPAN

# STATISTICAL ANALYSIS SYSTEM

UIC-20642

PLOT OF PREP TIME  
SYMBOL USED IS R

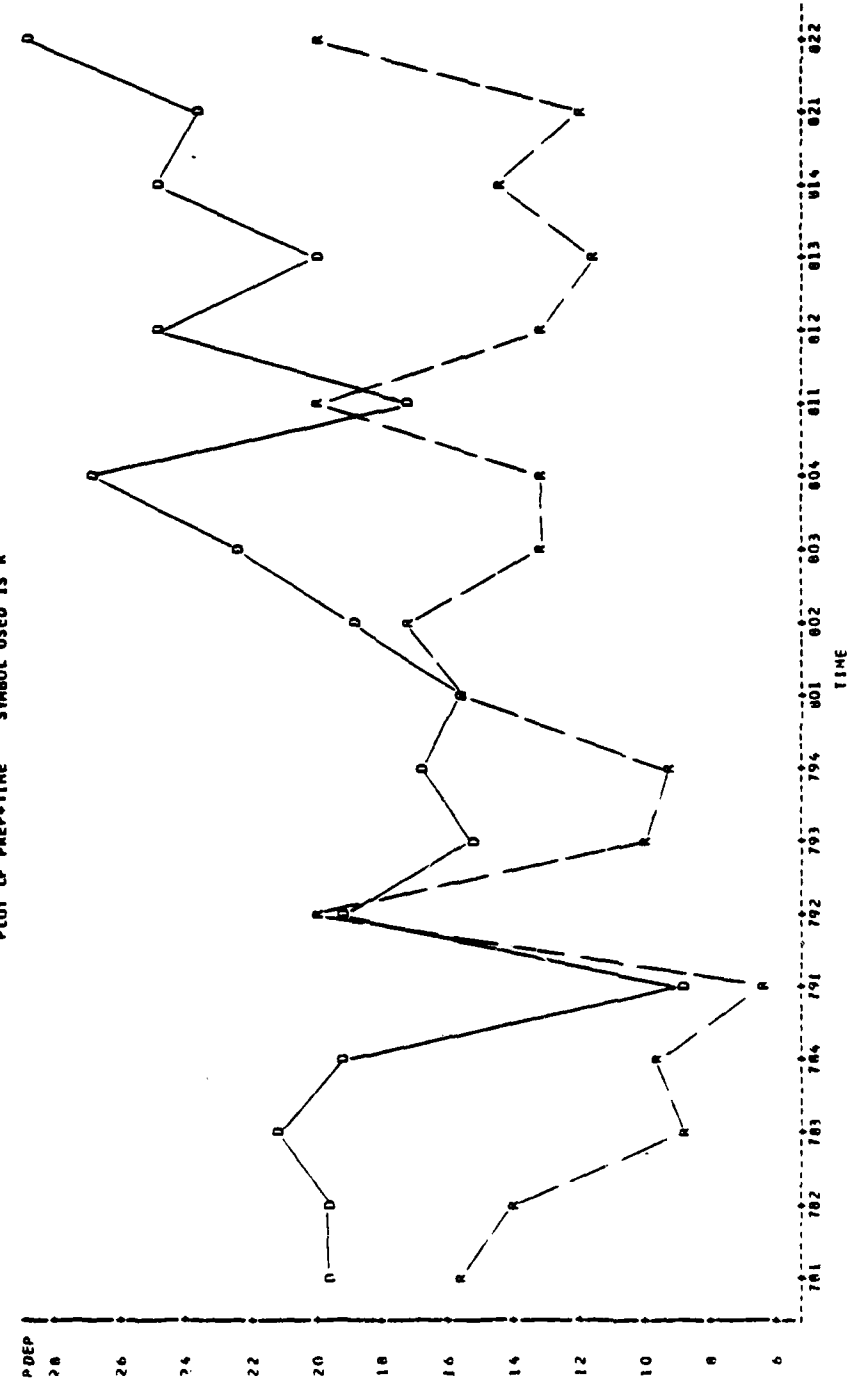


SSN 687 RICHARD RUSSELL

STATISTICAL ANALYSIS SYSTEM

UIC-52190

PLOT OF PREPOTIME  
SYMBOL USED IS R

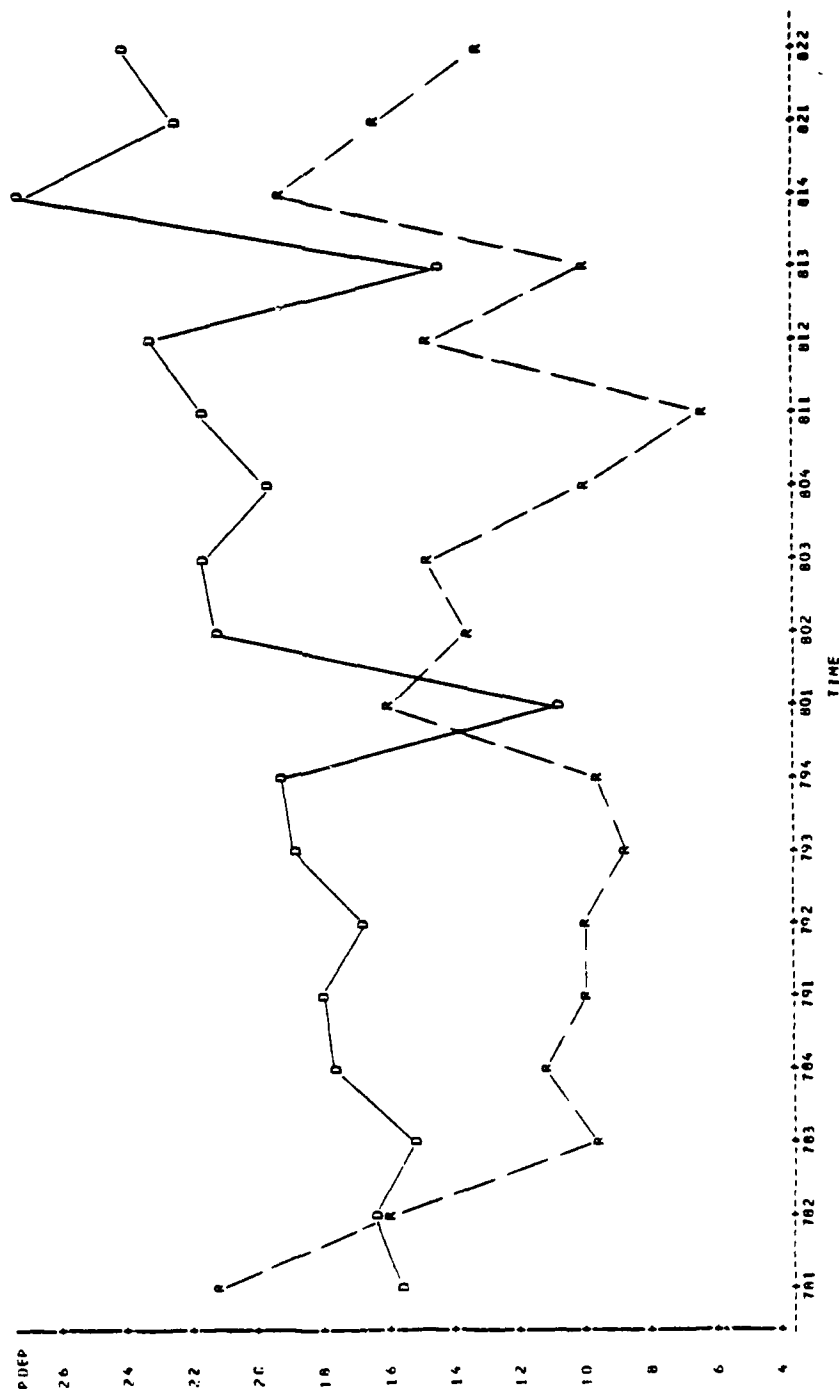


DD 938 JONAS INGRAM

STATISTICAL ANALYSIS SYSTEM

UIC-52234

PLOT OF PREP TIME SYMBOL USED IS R

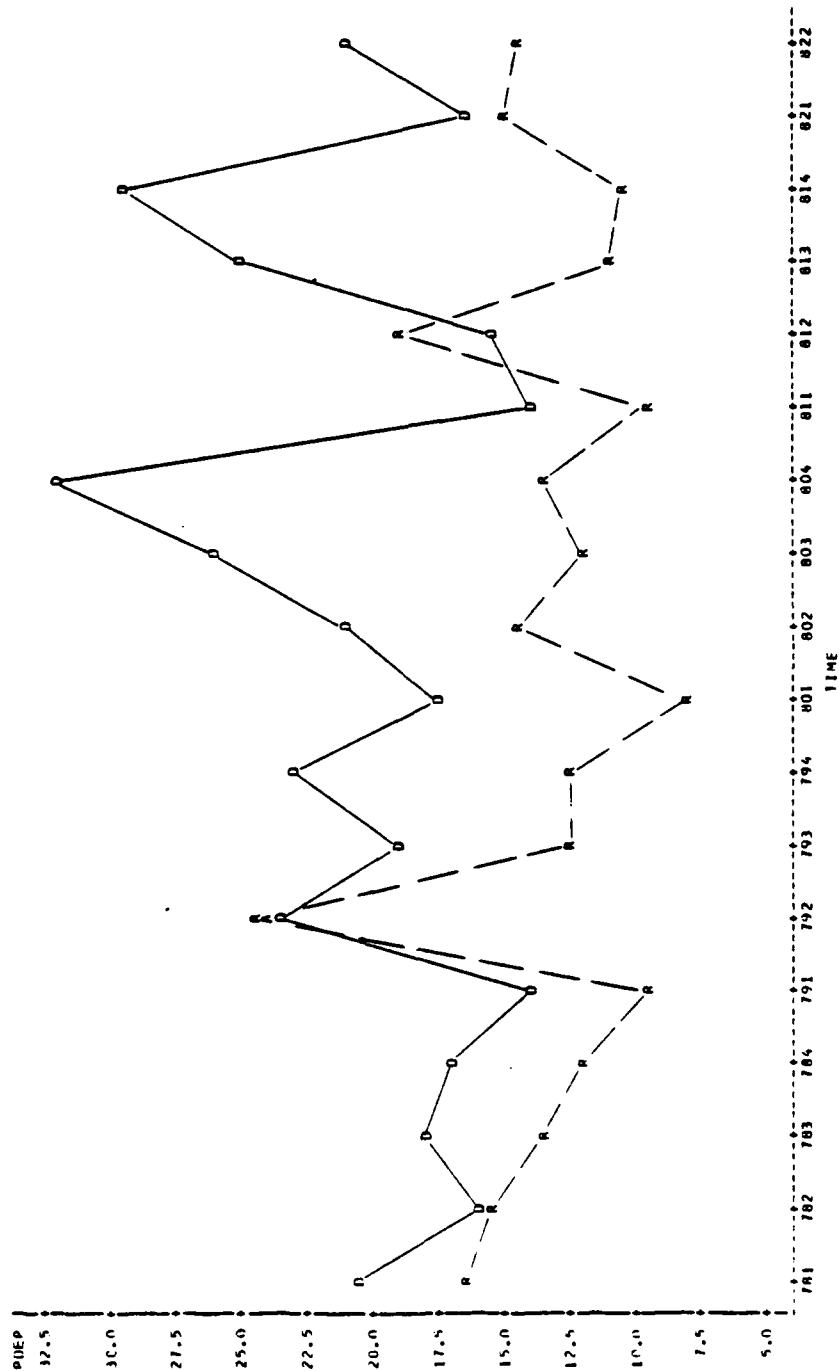


DDG 40 COONTZ

STATISTICAL ANALYSIS SYSTEM

UIC-52686

PLOT OF PREP TIME  
PLOT OF PREP TIME  
SYMBOL USED IS R

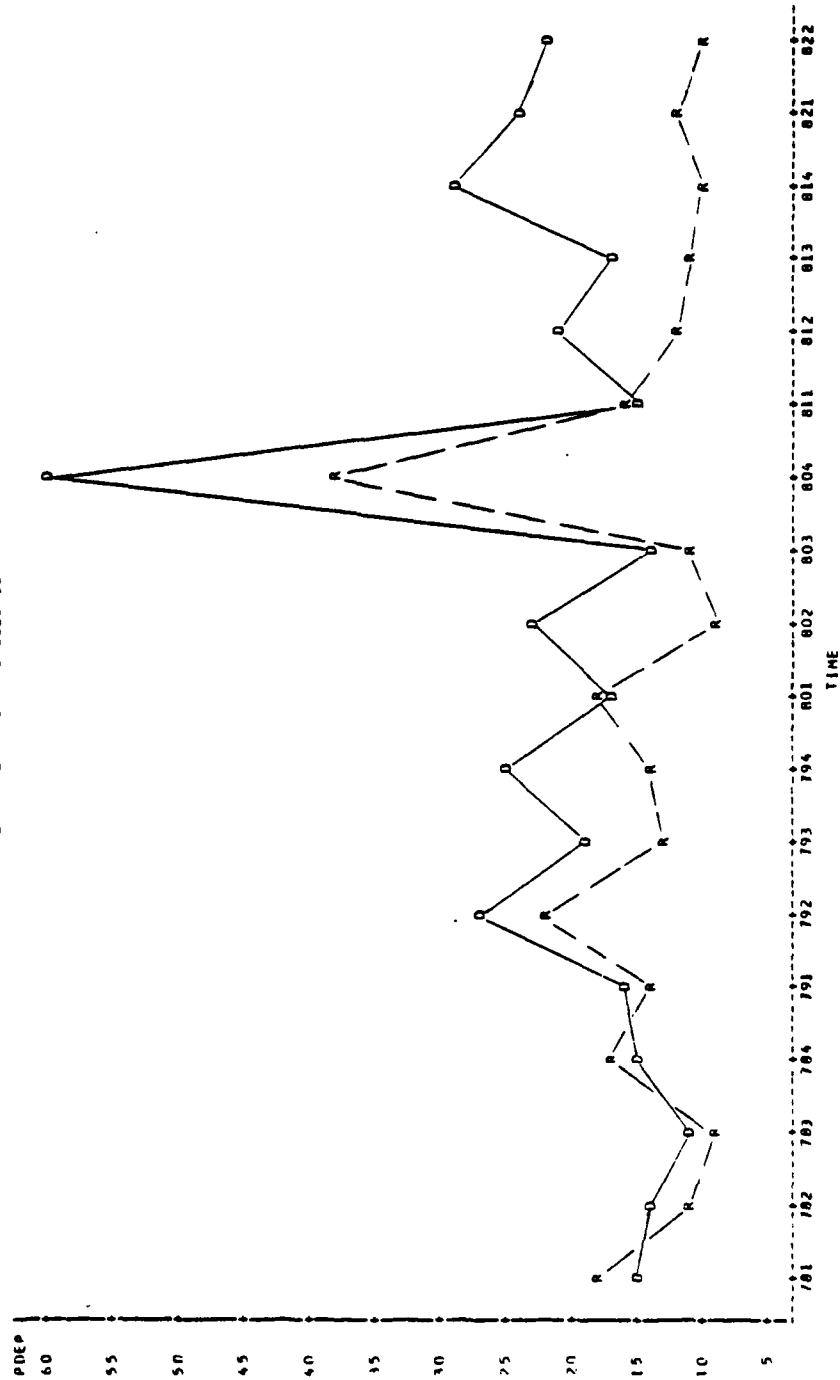


DDG 46 PREBLE

STATISTICAL ANALYSIS SYSTEM

UIC-52699

PLOT OF PREP:TIME SYMBOL USED IS R



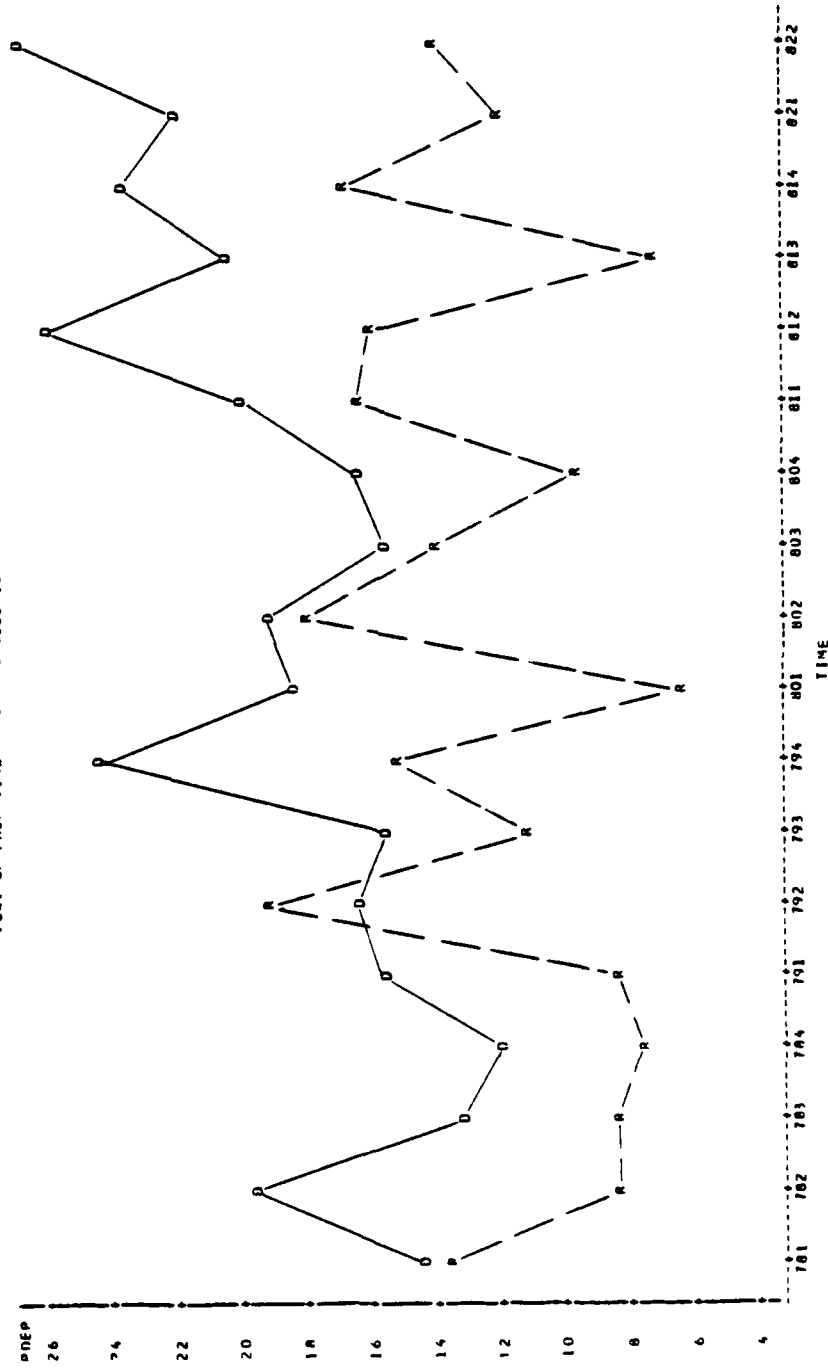
CG 24 REEVES

STATISTICAL ANALYSIS SYSTEM

UIC-52700

PLOT OF PREPOTIME SYMBOL USED IS D

PLOT OF PREPOTIME SYMBOL USED IS R

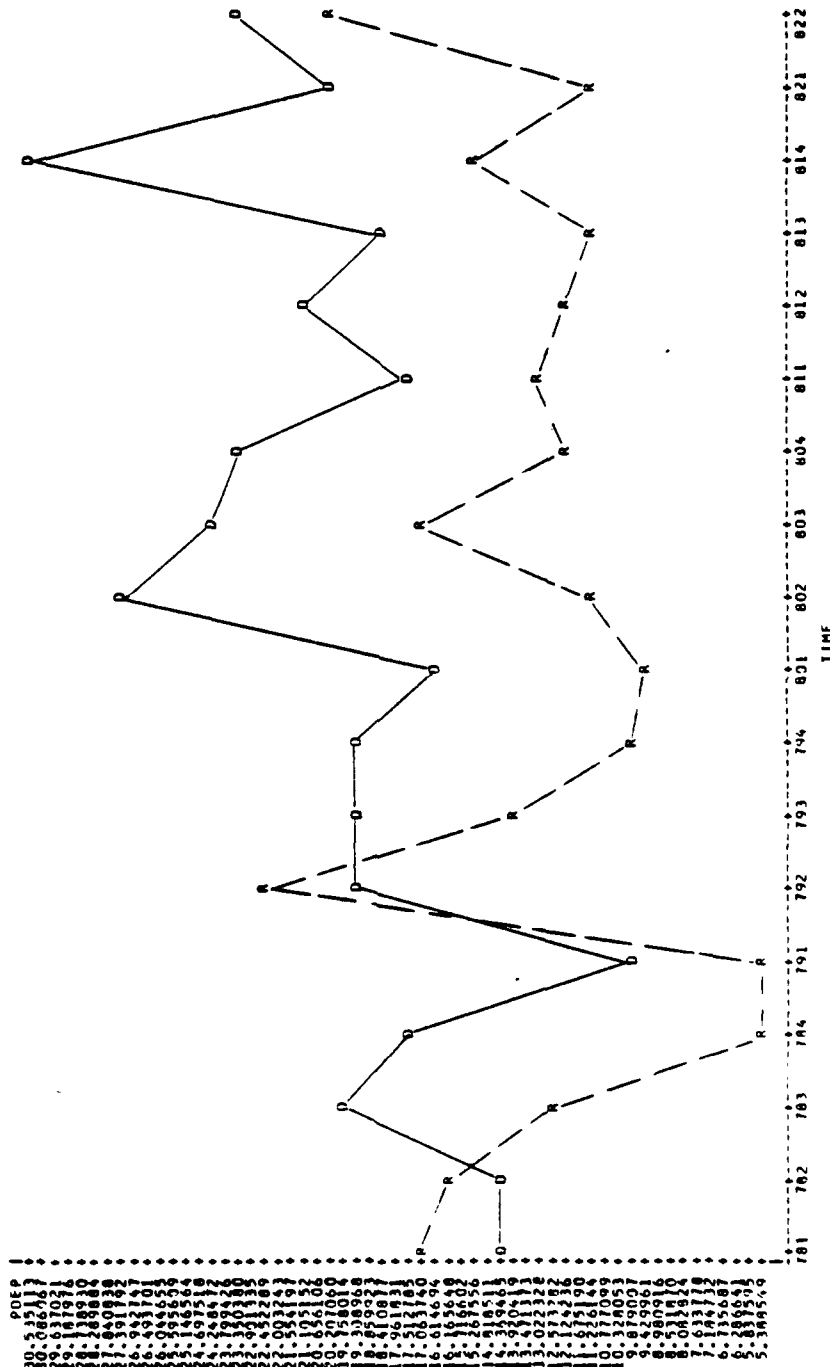


CGN 25 BAINBRIDGE

# STATISTICAL ANALYSIS SYSTEM

UIC-54057

PLOT OF PREP TIME SYMBOL USED IS R



FF 1062 WHIPPLE

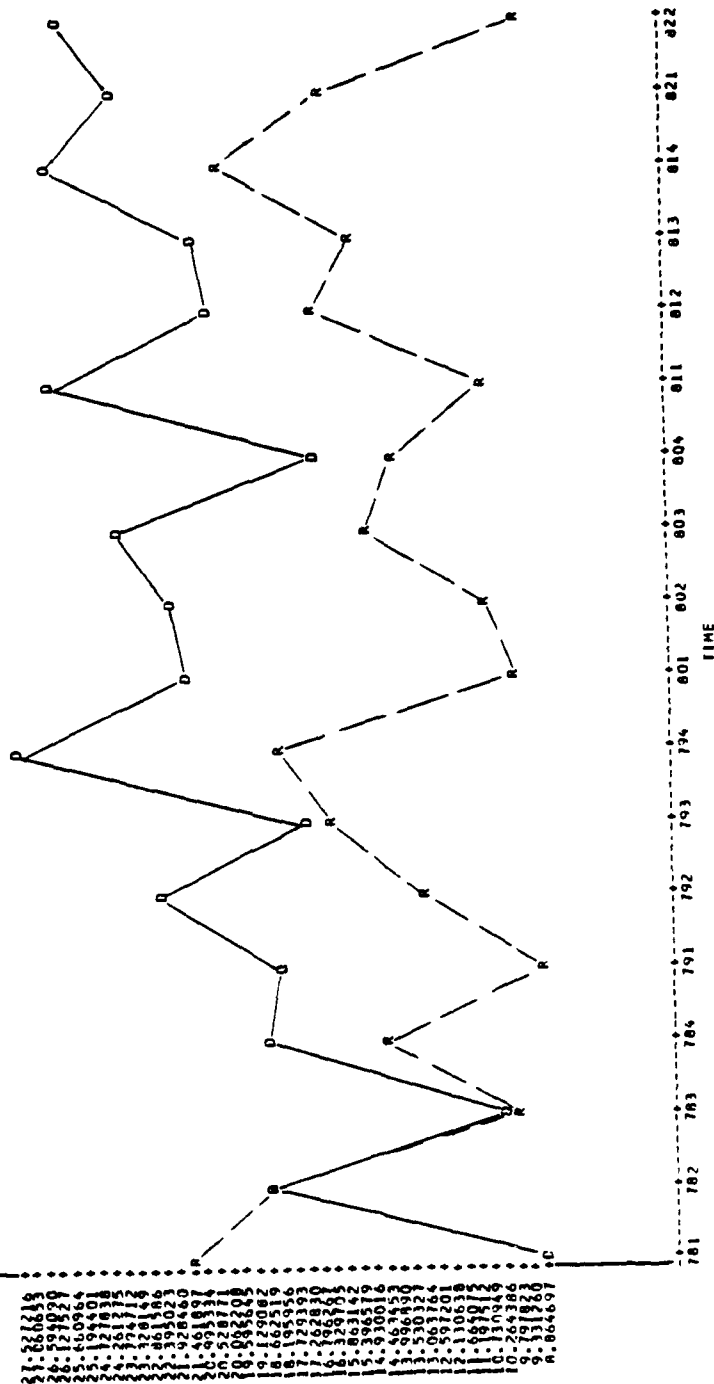


STATISTICAL ANALYSIS SYSTEM

UIC-54064

PLOT OF PRESTRESS TIME

PIEP



FF 1069 BAGLEY

## Appendix K

### Comparative Characteristic Statistics of Reporters and Leavers by UIC

The data displayed below is arranged in order (rows) by time from the first quarter of FY 1978 until the second quarter of FY 1982. Statistics are provided for each ship by quarter with data for reporting and departing personnel arranged left to right respectively. The data elements are as follows:

Time: fiscal year and quarter

Median Age

Mean Age

Median Length of Service

Mean Length of Service

Median AFQT

Mean AFQT

Median Education

Mean Education

ARS 39 CONSERVER

TIME	MEDIAN AGE	MEDIAN LOS	MEDIAN AFQT	MEDIAN	EDUCATION
	REPORT	DEPART	REPORT	DEPART	DEPART
801	24.97	22.50	4.79	48.50	12.00
802	21.54	22.83	1.79	58.00	12.00
803	19.88	21.33	0.92	63.00	12.00
804	30.33	24.42	7.92	62.00	12.00
811	19.42	24.67	0.67	69.00	12.00
812	22.17	24.17	3.08	69.00	12.00
813	22.33	23.04	2.17	60.00	12.00
814	23.50	23.67	3.42	56.50	12.00
821	22.50	23.50	4.13	60.00	12.00
822	24.08	22.13	3.13	66.50	12.00
				45.50	12.00

TIME	MEAN REPORT	AGE DEPART	MEAN REPORT	LOS DEPART	MEAN REPORT	AFQT DEPART	MEAN REPORT	EDUCATION DEPART
801	26.41	25.35	6.63	5.58	46.28	54.93	11.78	11.57
802	22.40	25.02	1.15	3.02	55.67	59.46	11.83	12.00
803	19.92	26.32	1.86	6.25	67.00	66.09	12.00	11.80
804	30.38	25.76	1.23	5.21	53.88	65.80	12.38	11.00
811	20.07	26.13	1.56	7.21	35.14	63.92	12.00	12.00
812	25.18	26.18	3.35	4.60	63.00	59.90	12.00	11.17
813	23.48	26.68	3.51	5.87	48.59	63.44	12.18	12.84
814	22.99	25.18	4.54	5.84	61.18	59.49	11.83	11.84
821	22.05	24.53	4.79	5.35	67.67	64.89	11.80	11.64
822	25.05	24.53	4.79	5.35	49.90	60.86	11.80	11.64

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC 02538

SHIP NAME ARS 43 RECOVERY

TIME	MEDIAN AGE REPORT DEPART	MEDIAN LOS REPORT DEPART	MEDIAN AFQT REPORT DEPART	MEDIAN EDUCATION REPORT DEPART
801	22.08	2.67	60.00	12.00
802	19.54	1.04	54.00	12.00
803	23.33	3.25	67.00	12.00
804	23.08	3.08	62.00	12.00
811	34.38	13.46	58.00	12.00
812	20.67	10.92	52.00	12.00
813	21.92	2.08	64.00	12.00
814	22.33	4.33	65.00	12.00
821	20.25	0.67	59.00	12.00
822	19.67	0.83	64.50	12.00

TIME	MEAN AGE REPORT DEPART	MEAN LOS REPORT DEPART	MEAN AFQT REPORT DEPART	MEAN EDUCATION REPORT DEPART
801	24.64	5.93	68.00	11.73
802	21.26	1.82	63.38	12.00
803	23.57	4.66	70.00	11.80
804	25.11	5.39	63.10	11.80
811	34.06	13.46	59.00	12.00
812	22.03	2.54	62.00	12.00
813	22.03	4.44	60.50	11.76
814	24.17	5.30	48.00	11.27
821	21.74	2.30	59.18	12.00
822	20.58	1.31	80.42	12.42

## UIC 03128

UIC 03128

SHIP NAME LSD 28 THOMASTON

TIME	MEDIAN REPORT	AGE DEPART	MEDIAN REPORT	LOS DEPART	MEDIAN REPORT	AFQT DEPART	MEDIAN REPORT	EDUCATION DEPART
80C1	20.50	3.04	1.775	4.25	51.00	57.00	12.00	12.00
80C2	20.25	3.21	1.775	4.33	60.00	62.00	12.00	12.00
80C3	20.50	2.48	1.083	3.17	52.00	58.00	12.00	12.00
80C4	21.00	2.96	0.923	4.00	56.00	52.00	12.00	12.00
81C1	20.50	3.33	0.83	3.25	53.00	59.00	12.00	12.00
81C2	20.25	2.38	1.17	3.13	47.00	56.00	12.00	12.00
81C3	20.57	2.67	1.083	4.04	50.00	65.00	12.00	12.00
81C4	21.96	2.17	1.92	2.79	53.00	60.00	12.00	12.00
82C1	21.13	2.42	0.83	3.33	59.00	59.00	12.00	12.00
82C2	21.13	2.42	0.83	3.33	59.00	59.00	12.00	12.00

TIME	MEAN REPORT	AGE DEPART	LOS DEPART	MEAN REPORT	AFQT DEPART	MEAN REPORT	EDUCATION DEPART
801	23.76	24.66	4.74	52.62	55.06	11.71	11.80
802	23.66	24.26	4.53	59.90	57.07	11.90	11.91
803	23.98	23.31	4.73	51.77	60.67	11.53	11.85
804	22.01	24.46	4.09	55.47	62.87	11.85	11.95
811	22.09	24.15	4.51	56.10	52.78	11.85	12.05
812	22.97	26.18	5.48	54.49	57.63	11.86	11.94
813	22.43	24.12	3.71	48.13	59.31	11.44	11.79
814	22.34	23.62	3.84	53.31	57.46	12.09	11.69
821	23.45	24.61	4.72	57.71	58.63	12.06	11.51
822	23.01	24.61	4.72	57.71	58.63	12.06	11.51

TIME	UIC	03129	SHIP NAME		LSD 29 PLYMOUTH ROCK		EDUCATION
			MEDIAN AGE	MEDIAN LCS	MEDIAN AFQT	MEDIAN REPORT	DEPART
801		20.58	23.13	0.83	50.00	12.00	12.00
802		20.21	21.83	1.00	59.50	12.00	12.00
803		21.25	21.83	1.08	54.00	12.00	12.00
804		21.50	22.33	0.92	54.00	12.00	12.00
811		20.58	22.92	0.92	55.00	12.00	12.00
812		20.58	22.67	0.92	60.00	12.00	12.00
813		27.88	22.25	9.13	44.50	12.00	12.00
814		26.50	22.25	2.58	54.00	12.00	12.00
821		27.23	22.38	4.42	57.00	12.00	12.00
822		20.75	23.33	1.42	50.00	12.00	12.00

TIME	MEAN REPORT	AGE DEPART	MEAN REPORT	LDS DEPART	MEAN REPORT	AFQT DEPART	MEAN REPORT	EDUCATION DEPART
8061	21.83	24.74	2.10	4.59	49.95	56.89	11.76	11.64
8023	21.70	23.99	2.89	4.07	61.09	61.41	11.59	11.71
8034	22.87	22.96	2.93	3.49	53.95	58.76	11.65	11.58
8111	21.52	24.91	1.85	4.49	55.27	59.02	11.61	11.69
8112	21.74	23.98	1.87	4.60	55.13	56.30	12.57	12.06
8113	26.60	24.63	2.23	5.13	53.13	61.06	11.00	11.73
8114	26.53	23.84	7.56	4.18	44.83	58.31	12.00	11.69
8211	28.02	24.62	6.04	4.27	56.33	60.19	11.68	12.86
8222	24.07	24.85	4.49	5.66	50.85	62.46	11.85	12.77

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC

03341

SHIP NAME

CV 41 MIDWAY

TIME	MEDIAN AGE REPORT DEPART	MEDIAN LOS REPORT DEPART	MEDIAN AFQT REPORT DEPART	MEDIAN EDUCATION REPORT DEPART
801	21.17	1.58	55.00	12.00
802	21.92	2.92	54.50	12.00
803	21.75	1.08	55.00	12.00
804	21.67	3.00	55.00	12.00
811	22.25	3.08	58.00	12.00
812	22.13	2.83	56.00	12.00
813	22.92	3.00	54.00	12.00
814	22.08	1.17	56.00	12.00
821	22.25	3.08	56.00	12.00
822	22.58	3.13	56.00	12.00
	22.17	3.00	55.00	12.00

TIME	MEAN AGE REPORT DEPART	MEAN LOS REPORT DEPART	MEAN AFQT REPORT DEPART	MEAN EDUCATION REPORT DEPART
801	23.14	4.41	55.09	11.70
802	22.10	3.83	56.41	11.72
803	22.75	3.99	56.73	11.65
804	23.24	4.74	58.73	11.80
811	21.89	4.30	58.14	11.76
812	22.44	4.14	56.40	11.72
813	22.97	4.26	59.40	11.80
814	22.97	4.35	58.68	11.74
821	22.66	4.91	57.29	11.87
822	22.15	4.09	57.63	11.89

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	03343	SHIP NAME	CV	43	CORAL	SEA
TIME						
801						
802						
803						
804						
811						
812						
813						
814						
821						
822						

TIME	REPORT	AGE	REPORT	LOS	REPORT	DEPART	MEAN	AFQT	REPORT	DEPART	MEAN	AFQT	REPORT	EDUCATION	DEPART	MEAN	EDUCATION
801	23.02	24.46	3.47	4.77	54.44	57.52	57.52	58.00	53.00	58.00	57.52	58.00	11.79	11.91	11.78	11.79	11.78
802	22.83	24.19	3.44	4.53	56.12	57.24	57.24	56.00	54.00	56.00	56.12	56.00	11.70	11.78	11.78	11.70	11.78
803	22.91	23.91	3.24	4.26	54.58	57.63	57.63	56.00	54.00	56.00	54.58	56.00	11.64	11.92	11.87	11.64	11.92
804	23.00	23.76	3.12	4.00	57.78	59.53	59.53	58.00	56.00	58.00	57.78	58.00	11.82	11.87	11.87	11.82	11.87
811	22.73	24.92	2.83	5.12	57.32	60.41	60.41	56.00	56.00	58.00	57.32	56.00	11.87	11.87	11.87	11.87	11.87
812	22.04	24.40	2.19	4.57	53.64	57.63	57.63	56.00	54.00	56.00	53.64	56.00	11.87	11.87	11.87	11.87	11.87
813	22.10	24.22	3.23	4.27	54.07	59.55	59.55	56.00	54.00	56.00	54.07	56.00	11.74	11.94	11.84	11.74	11.94
814	24.07	24.91	4.00	5.00	55.69	58.06	58.06	56.00	54.00	56.00	55.69	56.00	11.77	11.84	11.84	11.77	11.84
821	23.40	24.33	3.30	4.43	53.06	58.11	58.11	56.00	54.00	56.00	53.06	56.00	11.87	11.87	11.87	11.87	11.87
822	23.16	24.37	3.94	4.55	49.98	58.11	58.11	56.00	54.00	56.00	49.98	56.00	11.87	11.87	11.87	11.87	11.87



# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	03359	SHIP NAME	CV	59	FORRESTAL	MEDIAN AFQT	MEDIAN EDUCATION
TIME	MEDIAN AGE	MEDIAN LOS	REPORT	MEDIAN AFQT	REPORT	MEDIAN EDUCATION	
801	22.17	2.67	1.58	55.00	61.00	12.00	
802	22.67	3.25	1.50	55.00	58.00	12.00	
803	22.04	2.67	1.21	55.00	60.00	12.00	
804	22.33	3.08	1.25	55.00	59.00	12.00	
811	22.83	3.67	1.58	58.00	56.00	12.00	
812	22.92	3.42	1.17	55.00	60.00	12.00	
813	22.71	3.92	1.43	55.00	56.00	12.00	
814	22.83	3.63	1.28	56.00	60.00	12.00	
821	22.96	3.33	0.83	52.00	59.00	12.00	
822	22.75	3.00	0.92	50.00	62.00	12.00	

UIC	03359	SHIP NAME	CV	59	FORRESTAL	MEDIAN AFQT	MEDIAN EDUCATION
TIME	MEDIAN AGE	MEDIAN LOS	REPORT	MEDIAN AFQT	REPORT	MEDIAN EDUCATION	
801	23.69	4.21	3.40	56.81	60.83	11.80	
802	24.24	4.43	3.20	56.58	58.53	11.84	
803	23.58	3.92	3.47	56.02	60.58	11.79	
804	23.57	4.36	3.03	56.56	59.58	11.81	
811	24.86	5.32	3.17	58.70	59.10	11.73	
812	24.51	4.69	3.96	54.29	60.72	11.84	
813	24.11	4.65	3.25	55.31	58.68	11.76	
814	24.28	4.83	4.22	56.33	58.58	11.69	
821	24.55	4.89	2.51	53.36	60.66	11.81	
822	24.52	4.86	2.82	51.52	60.66	11.81	

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	03368	SHIP NAME	CVN 68 NIMITZ				
TIME	MEDIAN AGE	MEDIAN LUS	MEDIAN AFQT	MEDIAN REPORT	EDUCATION		
801	REPORT 21.00	REPORT 1.50	REPORT 63.00	REPORT 12.00	REPORT 12.00		
802	DEPART 22.75	DEPART 3.42	DEPART 60.00	DEPART 12.00	DEPART 12.00		
803	REPORT 21.67	REPORT 3.33	REPORT 63.00	REPORT 12.00	REPORT 12.00		
804	DEPART 22.67	DEPART 3.33	DEPART 61.50	DEPART 12.00	DEPART 12.00		
811	REPORT 20.67	REPORT 3.33	REPORT 62.00	REPORT 12.00	REPORT 12.00		
812	DEPART 22.50	DEPART 3.00	DEPART 60.00	REPORT 12.00	DEPART 12.00		
813	REPORT 21.75	REPORT 3.17	REPORT 61.00	REPORT 12.00	DEPART 12.00		
814	DEPART 22.58	DEPART 3.54	REPORT 60.00	REPORT 12.00	DEPART 12.00		
821	REPORT 20.92	REPORT 3.08	REPORT 60.00	REPORT 12.00	DEPART 12.00		
822	DEPART 22.83	REPORT 3.63	REPORT 60.00	REPORT 12.00	DEPART 12.00		
	REPORT 21.42	REPORT 3.63	REPORT 56.00	REPORT 12.00	DEPART 12.00		
	DEPART 23.17	REPORT 3.33	REPORT 53.00	REPORT 12.00	DEPART 12.00		

TIME	MEAN AGE	MEAN LUS	MEAN AFQT	MEAN REPORT	MEAN EDUCATION		
801	REPORT 22.73	REPORT 3.10	REPORT 59.54	REPORT 11.96	REPORT 11.81		
802	DEPART 23.49	DEPART 4.42	DEPART 62.18	REPORT 11.80	DEPART 11.86		
803	REPORT 22.59	REPORT 4.04	REPORT 62.32	REPORT 11.54	DEPART 11.88		
804	DEPART 22.34	REPORT 4.20	REPORT 62.15	REPORT 11.75	DEPART 11.80		
811	REPORT 22.43	REPORT 4.02	REPORT 62.26	REPORT 11.81	DEPART 11.81		
812	DEPART 22.75	REPORT 4.16	REPORT 61.86	REPORT 11.73	DEPART 11.79		
813	REPORT 22.08	REPORT 4.25	REPORT 60.44	REPORT 11.84	DEPART 11.77		
814	DEPART 23.90	REPORT 4.87	REPORT 61.18	REPORT 11.89	DEPART 11.76		
821	REPORT 23.12	REPORT 4.23	REPORT 60.07	REPORT 11.86	DEPART 11.90		
822	DEPART 22.64	REPORT 4.35	REPORT 60.14				

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC

04621

SHIP NAME AS 12 SPERRY

TIME	MEDIAN AGE REPORT	MEDIAN LOS REPORT	MEDIAN AFQT REPORT	MEDIAN EDUCATION REPORT
801	20.42	0.75	58.00	12.00
802	20.71	0.75	48.00	12.00
803	21.29	1.92	56.00	12.00
804	21.25	1.92	58.00	12.00
811	23.33	3.50	61.00	12.00
812	22.33	3.25	54.00	12.00
813	22.54	3.92	65.00	12.00
814	21.92	3.50	62.00	12.00
821	21.25	3.33	56.00	12.00
822	20.50	3.92	55.00	12.00

TIME	MEAN AGE REPORT	MEAN LOS REPORT	MEAN AFQT REPORT	MEAN EDUCATION REPORT
801	22.17	2.51	59.79	12.01
802	21.82	2.11	49.96	11.81
803	21.80	2.14	65.69	11.81
804	23.09	3.40	56.86	11.47
811	26.92	7.10	47.08	11.75
812	23.49	3.42	53.09	11.93
813	24.19	4.34	60.86	11.80
814	23.94	4.47	61.18	11.57
821	23.75	4.03	55.55	11.81
822	22.14	1.51	50.72	11.92

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	04028	SHIP NAME	AS 18 ORION	MEDIAN AGE REPORT DEPART	MEDIAN LOS REPORT DEPART	MEDIAN AFQT REPORT DEPART	MEDIAN EDUCATION REPORT DEPART
TIME	801	23.42	3.17	54.00	58.00	12.00	12.00
802	23.33	3.25	58.00	12.00	12.00	12.00	12.00
803	23.58	4.00	58.00	12.00	12.00	12.00	12.00
804	23.83	4.17	60.00	12.00	12.00	12.00	12.00
811	22.96	3.67	58.00	12.00	12.00	12.00	12.00
812	23.17	3.25	62.00	12.00	12.00	12.00	12.00
813	23.00	3.33	56.00	12.00	12.00	12.00	12.00
814	22.83	3.67	60.00	12.00	12.00	12.00	12.00
821	23.00	3.58	55.00	12.00	12.00	12.00	12.00
822	22.75	3.50	56.00	12.00	12.00	12.00	12.00

UIC	04028	SHIP NAME	AS 18 ORION	MEDIAN AGE REPORT DEPART	MEDIAN LOS REPORT DEPART	MEDIAN AFQT REPORT DEPART	MEDIAN EDUCATION REPORT DEPART
TIME	801	25.12	5.19	55.73	56.04	11.96	11.95
802	25.93	5.72	56.77	56.42	60.34	11.72	11.74
803	25.31	5.55	60.34	58.16	58.45	11.72	11.77
804	25.78	5.79	58.45	56.29	56.70	11.83	11.89
811	25.42	5.87	56.70	60.00	60.05	11.87	11.92
812	24.17	4.25	60.05	57.27	57.03	11.97	11.96
813	24.65	4.20	57.03	54.21	60.03	11.85	11.88
814	24.54	5.01	60.03	55.10	57.69	11.79	11.88
821	24.59	5.30	57.69	52.28	57.65	11.87	11.90
822	24.74	4.99	57.65	52.86	57.65	11.97	11.90

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

TIME	UIC	04637	SHIP NAME		AD 17 PIEDMONT		MEDIAN AFQT		MEDIAN EDUCATION	
			REPORT	DEPT	REPORT	DEPT	REPORT	DEPT	REPORT	DEPT
801			20.25	23.00	53.00	60.00	12.00	12.00	12.00	12.00
802			20.42	22.71	67.00	60.00	12.00	12.00	12.00	12.00
803			21.08	21.08	55.00	69.00	12.00	12.00	12.00	12.00
804			21.75	22.21	56.00	56.00	12.00	12.00	12.00	12.00
811			20.92	23.33	60.00	58.00	12.00	12.00	12.00	12.00
812			20.92	23.33	62.00	64.00	12.00	12.00	12.00	12.00
813			21.46	23.50	52.00	57.00	12.00	12.00	12.00	12.00
814			21.83	23.75	55.50	62.00	12.00	12.00	12.00	12.00
821			22.75	23.92						
822										

TIME	MEAN	AFQT	SHIP NAME		AD 17 PIEDMONT		MEAN AFQT		MEAN EDUCATION	
	REPORT	DEPT	REPORT	DEPT	REPORT	DEPT	REPORT	DEPT	REPORT	DEPT
801	21.73	24.41	54.67	59.63	11.72	11.73	11.72	11.73	11.73	11.73
802	22.17	24.39	65.60	58.09	11.91	58.20	11.91	58.20	11.83	58.20
803	23.34	24.59	59.80	67.20	11.73	62.84	11.55	62.84	11.99	62.84
804	23.96	24.74	55.48	56.17	11.86	56.17	11.86	56.17	11.76	56.17
811	22.85	24.68	58.21	57.17	11.90	62.60	11.90	62.60	11.82	62.60
812	22.97	24.79	60.26	62.71	11.74	63.60	11.74	63.60	11.90	63.60
813	23.21	24.46	50.48	57.29	12.01	57.29	12.01	57.29	11.90	57.29
814	23.87	24.27	56.16	61.28	12.04	61.28	12.04	61.28	11.72	61.28
821	24.17	24.82								
822	24.39	24.82								

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	UIC	04665	SHIP NAME	DDG 33 PARSONS	MEDIAN AGE	MEDIAN LOS	MEDIAN AFQT	MEDIAN EDUCATION
TIME	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	21.67	22.83	1.38	2.92	51.50	60.00	12.00	12.00
802	21.33	22.50	1.67	3.00	56.50	58.00	12.00	12.00
803	19.83	22.71	1.58	3.33	62.00	68.00	12.00	12.00
804	20.33	22.58	1.25	3.42	55.00	58.00	12.00	12.00
811	22.58	22.75	3.63	3.08	60.00	58.00	12.00	12.00
812	22.50	22.75	2.29	4.25	59.50	60.00	12.00	12.00
813	21.67	23.17	2.50	3.33	65.00	65.00	12.00	12.00
814	21.21	24.25	2.21	4.25	55.50	61.50	12.00	12.00
821	24.33	23.46	3.71	4.25	52.50	63.50	12.00	12.00
822	23.25	23.13	2.75	3.79	59.00	60.00	12.00	12.00

UIC	UIC	04665	SHIP NAME	DDG 33 PARSONS	MEDIAN AGE	MEDIAN LOS	MEDIAN AFQT	MEDIAN EDUCATION
TIME	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	23.24	24.62	3.30	4.48	55.50	59.83	12.13	12.04
802	23.62	24.59	3.55	4.72	58.35	58.08	11.90	11.75
803	23.03	24.23	4.13	4.44	64.35	65.08	11.45	11.74
804	23.22	24.25	3.71	4.79	56.03	58.46	11.73	11.90
811	25.31	25.65	5.03	5.89	56.60	59.72	11.03	11.80
812	25.80	25.08	3.60	5.13	56.58	59.87	11.80	11.94
813	22.64	26.45	4.05	6.52	60.65	63.88	11.52	11.98
814	23.24	24.46	4.35	4.86	57.18	61.73	11.93	11.71
821	23.51	24.96	5.58	4.67	54.93	63.96	11.79	11.93

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	04666	SHIP NAME	DD 950	RICHARD EDWARDS
TIME				
801	MEDIAN AGE	MEDIAN LUS	MEDIAN AFQT	MEDIAN EDUCATION
802	REPORT	REPORT	REPORT	REPORT
803	21.50	1.75	58.00	12.00
804	20.50	0.92	61.00	12.00
811	20.33	1.13	60.00	12.00
812	20.71	1.17	58.00	12.00
813	22.58	2.00	64.00	12.00
814	21.50	1.67	60.00	12.00
821	23.17	3.25	58.00	12.00
822	25.33	4.17	62.00	12.00
	21.04	1.17	67.00	12.00
	21.42	1.83	62.00	12.00

UIC	04666	SHIP NAME	DD 950	RICHARD EDWARDS
TIME				
801	MEAN AGE	MEAN LUS	MEAN AFQT	MEAN EDUCATION
802	REPORT	REPORT	REPORT	REPORT
803	23.82	3.97	56.80	11.90
804	21.86	2.35	60.03	11.78
811	21.84	2.44	61.14	11.80
812	22.99	2.36	60.16	11.92
813	22.41	2.90	60.27	11.76
814	24.71	2.68	62.55	12.06
821	26.69	4.86	62.66	11.85
822	22.74	6.45	62.18	11.07
	22.77	3.37	61.91	11.79
				11.88
				11.76

## COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC

04074

SHIP NAME

DDG 8 LYNDE MCCORMICK

TIME	MEDIAN AGE REPORT	MEDIAN AGE DEPART	MEDIAN LOS REPORT	MEDIAN LOS DEPART	MEDIAN AFQT REPORT	MEDIAN AFQT DEPART	MEDIAN EDUCATION REPORT	MEDIAN EDUCATION DEPART
801	21.50	23.17	2.83	4.42	56.00	65.00	12.00	12.00
802	21.88	23.58	2.63	4.04	54.00	60.00	12.00	12.00
803	24.25	23.13	4.00	3.92	69.00	62.00	12.00	12.00
804	21.25	22.08	2.04	3.08	61.00	64.50	12.00	12.00
811	22.08	23.17	1.88	4.00	54.00	62.00	12.00	12.00
812	22.33	23.42	1.92	3.75	62.00	65.00	12.00	12.00
813	20.92	24.38	1.25	4.25	67.00	66.50	12.00	12.00
814	23.17	23.67	1.50	4.25	62.00	67.00	12.00	12.00
821	22.50	22.92	3.00	3.83	65.00	62.00	12.00	12.00
822	21.96	22.83	2.17	3.33	62.50	59.00	12.00	12.00

TIME	MEAN AGE REPORT	MEAN AGE DEPART	MEAN LOS REPORT	MEAN LOS DEPART	MEAN AFQT REPORT	MEAN AFQT DEPART	MEAN EDUCATION REPORT	MEAN EDUCATION DEPART
801	23.40	24.41	4.29	5.16	54.84	61.68	11.71	11.94
802	23.55	24.75	4.27	5.06	56.82	60.73	11.64	11.02
803	24.74	25.17	5.57	5.56	64.81	61.04	11.95	11.83
804	22.99	23.61	3.38	4.25	62.18	63.67	11.50	11.64
811	23.21	25.03	3.91	5.46	51.82	65.22	11.90	11.85
812	23.97	25.57	3.80	5.31	62.28	60.94	11.22	11.95
813	22.70	25.56	2.46	6.18	62.49	61.77	11.69	12.08
814	23.69	24.95	3.76	5.12	58.53	65.51	11.67	11.89
821	24.95	24.58	4.88	5.64	62.55	58.93	11.68	11.75
822	23.68	24.60	2.95	4.77	59.44	61.63	11.90	12.04



# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC

0 4609

SHIP NAME

AS 31 HUNLEY

TIME	MEDIAN AGE		MEDIAN LOS		MEDIAN AFQT		MEDIAN EDUCATION	
	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
8C1	20.38	22.67	1.04	3.42	54.00	60.00	12.00	12.00
8C2	20.67	22.75	1.00	3.17	52.00	58.00	12.00	12.00
8C3	21.58	25.50	3.08	4.67	56.00	60.00	12.00	12.00
8C4	20.83	24.33	1.58	4.42	55.00	61.00	12.00	12.00
811	21.92	23.08	2.00	3.46	60.00	69.00	12.00	12.00
812	22.92	23.00	2.33	3.04	64.00	62.00	12.00	12.00
813	22.67	23.21	2.25	3.75	75.00	58.00	12.00	12.00
814	20.75	22.96	0.83	4.13	62.00	65.00	12.00	12.00
821	24.33	23.75	4.92	4.33	47.00	62.00	12.00	12.00
822		22.83		3.75	63.00	56.00	12.00	12.00

TIME	MEAN AGE		MEAN LOS		MEAN AFQT		MEAN EDUCATION	
	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
8C1	21.93	24.43	2.42	4.97	56.85	61.34	11.79	11.89
8C2	23.23	24.23	3.41	4.55	51.40	58.53	11.76	11.89
8C3	23.88	26.43	4.29	6.32	55.75	57.72	11.78	12.06
8C4	23.57	26.10	3.72	6.36	57.81	58.80	11.57	12.00
811	23.30	24.54	3.89	4.95	56.03	66.61	11.88	11.95
812	24.80	24.58	5.06	4.72	60.72	61.81	11.88	11.89
813	24.72	25.15	4.68	5.30	69.07	59.90	11.88	11.91
814	24.60	25.33	4.28	5.77	59.98	62.93	11.84	12.00
821	25.71	25.50	3.90	5.64	50.68	60.91	12.02	11.94
822	26.29	25.60	6.54	5.31	61.33	57.43	11.96	11.84

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

TIME	UIC	SHIP NAME	FEG	5	RICHARD	L	PAGE	MEDIAN AGE				MEDIAN LOS				MEDIAN AFQT				MEDIAN EDUCATION			
								REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801								22.25	22.63	1.75	3.21	57.00	66.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
802								20.63	21.50	1.17	2.67	61.00	62.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
803								21.00	22.63	1.21	3.33	53.50	63.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
804								23.50	22.58	1.58	3.67	54.00	65.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
811								20.00	23.00	0.92	3.46	55.00	64.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
812								21.25	22.33	1.83	3.25	58.00	60.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
813								22.58	22.25	2.08	2.67	67.00	64.50	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
814								21.92	23.25	1.21	3.96	74.00	58.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
821								20.67	23.63	1.25	4.08	52.00	62.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
822								22.33		1.04													

TIME		UIC	SHIP NAME	FEG	5	RICHARD	L	PAGE	MEAN AGE				MEAN LOS				MEAN AFQT				MEAN EDUCATION			
									REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801									22.85	23.46	2.69	3.70	59.59	63.61	12.04	11.68	11.67	11.63	11.65	11.75	11.88	11.91	11.91	11.91
802									23.26	23.29	3.80	4.32	55.00	63.29	11.67	11.68	11.67	11.63	11.65	11.75	11.88	11.91	11.91	11.91
803									22.89	24.85	3.25	5.11	55.28	59.93	11.67	11.68	11.67	11.63	11.65	11.75	11.88	11.91	11.91	11.91
804									25.91	24.13	5.28	4.76	60.35	61.14	11.67	11.68	11.67	11.63	11.65	11.75	11.88	11.91	11.91	11.91
811									20.39	24.57	1.38	4.94	64.15	64.90	11.67	11.68	11.67	11.63	11.65	11.75	11.88	11.91	11.91	11.91
812									22.37	24.29	3.31	4.57	57.33	58.81	11.67	11.68	11.67	11.63	11.65	11.75	11.88	11.91	11.91	11.91
813									24.17	23.84	4.15	4.16	60.56	63.91	11.67	11.68	11.67	11.63	11.65	11.75	11.88	11.91	11.91	11.91
814									24.51	24.07	4.77	4.08	54.27	63.60	11.67	11.68	11.67	11.63	11.65	11.75	11.88	11.91	11.91	11.91
821									22.44	26.26	2.10	6.56	70.68	57.82	11.67	11.68	11.67	11.63	11.65	11.75	11.88	11.91	11.91	11.91
822									23.91	25.12	4.19	5.35	53.14	59.84	11.67	11.68	11.67	11.63	11.65	11.75	11.88	11.91	11.91	11.91

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	04951	SHIP NAME	AO 51 ASHTABULA				
TIME	MEDIAN AGE REPORT	MEDIAN LOS REPORT	MEDIAN AFQT REPORT	MEDIAN REPORT	EDUCATION DEPART		
801	22.13	2.54	51.00	12.00	12.00		
802	21.17	1.67	55.00	12.00	12.00		
803	21.67	1.00	50.00	12.00	12.00		
804	20.67	1.42	61.00	12.00	12.00		
811	21.50	1.58	56.00	12.00	12.00		
812	21.25	1.04	60.00	12.00	12.00		
813	21.33	0.92	50.00	12.00	12.00		
814	22.58	1.25	49.00	12.00	12.00		
821	19.96	0.67	43.50	12.00	12.00		
822	21.67	0.92	55.00	12.00	12.00		
TIME	MEAN AGE REPORT	MEAN LOS REPORT	MEAN AFQT REPORT	MEAN REPORT	EDUCATION DEPART		
801	23.79	3.81	49.54	11.54	11.73		
802	23.26	3.30	56.47	11.74	11.80		
803	25.09	4.34	53.86	11.51	11.65		
804	21.55	4.21	57.84	11.78	11.75		
811	23.18	4.06	55.31	11.82	11.69		
812	23.51	4.53	59.63	11.97	12.11		
813	22.77	4.54	59.98	12.35	11.89		
814	24.77	6.39	59.05	12.05	11.90		
821	22.24	2.71	53.57	12.16	11.95		
822	22.63	2.52	54.68				

TIME	MEDIAN AGE		MEDIAN LOS		MEDIAN AFQT		MEDIAN REPORT		EDUCATION DEPART
	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	
801	21.96	22.08	1.71	2.79	67.50	72.00	12.00	12.00	12.00
802	22.29	22.67	3.17	3.67	69.00	62.00	12.00	12.00	12.00
803	21.58	24.00	4.17	4.17	64.00	75.00	12.00	12.00	12.00
804	22.08	22.25	2.67	3.33	55.00	73.00	12.00	12.00	12.00
811	20.17	23.17	1.25	4.42	59.50	64.00	12.00	12.00	12.00
812	20.67	25.25	1.75	5.08	73.00	53.50	12.00	12.00	12.00
813	23.67	23.42	3.29	3.92	71.00	69.00	12.00	12.00	12.00
814	24.00	22.75	2.50	3.88	62.00	67.00	12.00	12.00	12.00
821	21.00	22.75	1.50	4.33	58.00	67.00	12.00	12.00	12.00
822	23.71	23.58	5.71	4.83	63.50	65.00	12.00	12.00	12.00

TIME	MEAN REPORT	AGE DEPART	MEAN REPORT	LUS DEPART	MEAN REPORT	AFQT DEPART	MEAN REPORT	EDUCATION DEPART
801	23.77	23.05	3.68	4.09	65.30	68.33	12.00	11.67
802	24.84	26.56	4.64	6.78	60.55	57.43	11.95	12.14
803	21.83	24.11	3.63	5.03	62.40	69.92	12.20	12.77
804	22.08	25.77	3.67	4.96	55.00	70.89	12.00	11.56
811	21.83	26.27	3.48	6.46	59.67	60.80	11.58	11.67
812	21.16	27.76	2.20	7.18	71.33	54.42	11.73	12.08
813	25.96	27.91	6.06	5.51	63.42	65.22	12.17	11.61
814	26.88	24.88	6.46	6.07	60.31	67.30	12.06	11.30
821	23.85	23.87	6.39	4.56	59.67	67.53	11.44	11.94
822	26.03	25.64	7.46	8.67	59.33	62.95	11.50	11.74

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

TIME	UIC	05833	SHIP NAME AOE 2 CAMDEN				MEDIAN AGE		MEDIAN LOS		MEDIAN AFQT		MEDIAN EDUCATION	
			REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801			21.42	22.42	2.67	2.75	55.00	58.00	55.00	58.00	12.00	12.00	12.00	12.00
802			21.00	22.42	2.55	3.00	55.00	60.00	55.00	60.00	12.00	12.00	12.00	12.00
803			20.92	22.92	1.83	3.17	56.00	60.00	56.00	60.00	12.00	12.00	12.00	12.00
804			20.96	22.58	0.96	3.17	55.00	60.00	55.00	60.00	12.00	12.00	12.00	12.00
811			21.54	22.54	2.42	3.42	54.50	55.00	54.50	55.00	12.00	12.00	12.00	12.00
812			20.50	22.50	0.83	3.25	54.00	60.00	54.00	60.00	12.00	12.00	12.00	12.00
813			21.00	22.08	1.00	2.52	50.00	62.00	50.00	62.00	12.00	12.00	12.00	12.00
814			21.58	22.67	3.00	2.79	54.00	65.00	54.00	65.00	12.00	12.00	12.00	12.00
821			20.88	22.75	0.88	3.67	47.50	64.00	47.50	64.00	12.00	12.00	12.00	12.00
822			21.42	22.58	1.00	3.42	50.00	66.50	50.00	66.50	12.00	12.00	12.00	12.00

TIME	UIC	05833	SHIP NAME AOE 2 CAMDEN				MEAN AGE		MEAN LOS		MEAN AFQT		MEAN EDUCATION	
			REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801			23.74	24.08	4.20	4.56	54.93	59.85	54.93	59.85	11.49	11.84	11.49	11.84
802			22.26	24.38	2.95	4.92	58.58	58.82	58.58	58.82	11.74	11.67	11.74	11.67
803			21.90	23.65	2.63	4.09	57.13	60.60	57.13	60.60	11.38	11.57	11.38	11.57
804			22.81	24.09	2.92	4.29	58.50	61.00	58.50	61.00	11.74	11.81	11.74	11.81
811			22.67	23.97	3.01	4.35	54.67	58.29	54.67	58.29	11.67	11.59	11.67	11.59
812			22.50	23.85	3.06	4.21	56.55	60.47	56.55	60.47	11.90	11.87	11.90	11.87
813			22.78	24.43	3.32	4.78	51.85	61.76	51.85	61.76	11.65	11.85	11.65	11.85
814			22.91	23.88	3.34	4.36	56.35	64.37	56.35	64.37	11.74	11.85	11.74	11.85
821			22.80	24.55	3.99	5.00	50.48	60.71	50.48	60.71	11.78	11.71	11.78	11.71
822			22.55	24.07	3.06	4.37	53.22	64.02	53.22	64.02	11.66	11.90	11.66	11.90

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

TIME	UIC	05836	SHIP NAME AFS 5 CONCORD				MEDIAN LOS		MEDIAN AFQT		MEDIAN EDUCATION	
			REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801			21.50	25.33	0.92	3.50	57.00	56.00	12.00	12.00	12.00	12.00
802			20.88	21.58	0.79	2.83	54.00	62.00	12.00	12.00	12.00	12.00
803			22.00	22.58	1.25	2.92	52.00	56.00	12.00	12.00	12.00	12.00
804			20.75	22.83	1.08	3.00	56.00	65.00	12.00	12.00	12.00	12.00
811			20.88	22.67	1.13	3.38	51.00	54.50	12.00	12.00	12.00	12.00
812			20.00	23.38	0.75	3.37	49.00	60.00	12.00	12.00	12.00	12.00
813			24.33	22.17	5.25	3.67	50.00	64.00	12.00	12.00	12.00	12.00
814			21.08	23.25	1.25	3.83	62.00	66.00	12.00	12.00	12.00	12.00
821			21.21	23.42	1.00	4.17	51.00	64.00	12.00	12.00	12.00	12.00
822			22.71	22.42	1.29	3.25	54.00	56.00	12.00	12.00	12.00	12.00
TIME			MEDIAN LUS				MEDIAN AFQT		MEDIAN EDUCATION			
			REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART		
801			23.30	24.37	2.90	4.74	56.58	57.42	11.78	11.83	11.83	11.83
802			22.80	23.87	3.17	5.00	53.75	59.27	11.75	11.83	11.83	11.83
803			22.84	23.65	3.06	3.81	55.64	58.80	11.93	11.93	11.93	11.93
804			22.90	24.46	3.55	3.77	53.00	55.16	11.68	11.68	11.68	11.68
811			22.69	24.24	3.55	4.60	51.58	56.26	11.73	11.73	11.73	11.73
812			21.41	24.41	1.86	4.39	49.16	59.94	11.70	11.70	11.70	11.70
813			26.67	23.57	6.45	3.77	48.39	59.98	11.87	11.87	11.87	11.87
814			22.16	24.56	2.47	4.34	62.03	62.26	11.66	11.66	11.66	11.66
821			22.18	25.94	2.47	6.36	53.97	59.48	11.78	11.78	11.78	11.78
822			24.01	24.79	3.83	4.66	54.07	56.48	12.14	12.14	12.14	12.14

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	05847	SHIP NAME	LKA 116 ST LOUIS				
TIME	MEDIAN AGE REPORT DEPART	MEDIAN LOS REPORT DEPART	MEDIAN AFQT REPORT DEPART	MEDIAN REPORT	EDUCATION DEPART		
801	22.25	1.25	47.00	12.00	12.00		
802	20.92	1.08	58.00	12.00	12.00		
803	21.29	1.71	60.00	12.00	12.00		
804	20.83	0.83	56.00	12.00	12.00		
811	20.25	0.96	43.00	12.00	12.00		
812	22.46	1.17	50.50	12.00	12.00		
813	22.67	1.17	46.00	12.00	12.00		
814	22.42	1.54	57.00	12.00	12.00		
821	20.13	0.83	54.00	12.00	12.00		
822	21.92	0.83	52.00	12.00	12.00		

TIME	MEAN AGE REPORT DEPART	MEAN LOS REPORT DEPART	MEAN AFQT REPORT DEPART	MEAN REPORT	EDUCATION DEPART		
801	24.23	3.88	48.88	11.98	11.85		
802	21.69	3.34	59.78	11.57	11.72		
803	22.53	3.30	58.65	11.53	11.86		
804	22.08	2.99	59.91	12.94	11.75		
811	22.42	3.30	49.63	11.94	11.89		
812	24.77	4.82	50.91	11.86	11.98		
813	23.05	3.87	48.68	11.58	11.80		
814	22.09	4.47	56.77	11.50	12.12		
821	22.27	2.85	51.42	11.81	11.96		
822	23.27	2.61	56.29				

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	07183	SHIP NAME	LPD 9 DENVER
TIME			
801	REPORT	MEDIAN AGE	MEDIAN LOS
802	21.42	22.38	3.81
803	21.33	22.92	4.51
804	22.00	22.08	3.70
811	20.38	22.79	4.54
812	20.25	22.92	5.24
813	20.67	22.92	6.04
814	22.08	23.25	5.27
821	21.92	23.33	4.29
822	22.25	23.17	4.43
	REPORT	MEDIAN AFQT	MEDIAN EDUCATION
	12.00	58.00	12.00
	12.00	55.50	12.00
	12.00	50.00	12.00
	12.00	58.00	12.00
	12.00	58.00	12.00
	12.00	62.00	12.00
	12.00	56.00	12.00
	12.00	55.50	12.00
	12.00	53.50	12.00
	12.00	56.00	12.00
	12.00	59.00	12.00
	12.00	49.00	12.00

UIC	07183	SHIP NAME	LPD 9 DENVER
TIME			
801	REPORT	MEDIAN AGE	MEDIAN LOS
802	22.91	23.63	3.81
803	22.43	24.03	4.51
804	23.44	23.49	3.70
811	21.87	23.59	4.54
812	22.12	24.83	5.24
813	22.04	25.65	6.04
814	24.46	25.66	5.27
821	23.56	24.77	4.29
822	23.70	24.72	4.43
	REPORT	MEDIAN AFQT	MEDIAN EDUCATION
	12.00	59.00	12.00
	11.90	56.52	11.90
	12.00	59.93	12.00
	11.66	59.58	11.66
	11.70	59.73	11.70
	11.96	58.30	11.96
	12.04	56.77	12.04
	11.77	55.33	11.77
	11.85	57.42	11.85
	11.96	61.49	11.96



# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

TIME	UIC	07351	SHIP NAME		LPH 3 OKINAWA		MEDIAN LOS		MEDIAN AFQT		MEDIAN EDUCATION	
			REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801			21.25	22.83	1.67	3.50	49.00	60.00	12.00	12.00	12.00	12.00
802			20.71	23.58	1.00	3.33	53.00	60.00	12.00	12.00	12.00	12.00
803			21.42	22.42	1.92	3.25	55.00	55.00	12.00	12.00	12.00	12.00
804			21.04	23.13	1.17	3.00	54.50	62.00	12.00	12.00	12.00	12.00
811			21.17	22.46	1.58	3.71	52.00	62.00	12.00	12.00	12.00	12.00
812			20.50	22.83	1.00	3.54	55.00	55.00	12.00	12.00	12.00	12.00
813			21.08	24.88	1.67	4.00	52.00	58.00	12.00	12.00	12.00	12.00
814			23.92	23.50	3.00	4.25	50.00	58.00	12.00	12.00	12.00	12.00
821			21.92	23.50	1.67	3.75	46.00	64.00	12.00	12.00	12.00	12.00
822			22.00	23.17	1.08	4.04	56.00	63.00	12.00	12.00	12.00	12.00
TIME			MEAN LOS		MEAN AFQT		MEAN EDUCATION					
			REPORT	DEPART	REPORT	DEPART	REPORT	DEPART				
801			23.21	24.59	50.98	58.20	11.91	11.87				
802			22.84	25.47	53.59	60.74	11.82	11.78				
803			23.03	23.89	58.17	53.02	11.91	11.88				
804			23.29	24.47	56.05	63.63	11.51	12.03				
811			23.98	24.37	53.59	61.32	12.73	11.72				
812			21.98	24.42	55.91	55.69	11.68	11.85				
813			22.37	25.55	52.37	57.70	11.94	11.76				
814			26.43	24.81	51.20	58.13	12.00	12.09				
821			24.66	25.41	48.57	61.14	11.84	11.72				
822			24.67	24.93	55.65	61.49	11.84	11.72				

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

TIME	UIC	08808	SHIP NAME		AR 5 VULCAN	MEDIAN AFQT		MEDIAN EDUCATION	
			MEDIAN REPORT	MEDIAN DEPART		MEDIAN REPORT	MEDIAN DEPART		
801	08808			MEDIAN REPORT	MEDIAN DEPART	MEDIAN REPORT	MEDIAN DEPART		
802				0.83	3.17	52.00	59.00	12.00	12.00
803				1.20	2.75	55.00	59.00	12.00	12.00
804				1.92	3.25	54.00	60.50	12.00	12.00
811				1.92	2.96	56.00	61.00	12.00	12.00
812				1.33	3.00	62.00	57.00	12.00	12.00
813				1.00	4.04	62.00	62.50	12.00	12.00
814				1.25	2.63	64.00	64.00	12.00	12.00
821	1.08	2.50	59.00	62.00	12.00	12.00			
822	1.54	3.83	59.00	58.00	12.00	12.00			
TIME				MEAN AFQT		MEAN EDUCATION			
				MEAN REPORT	MEAN DEPART	MEAN REPORT	MEAN DEPART		
801				53.86	60.04	11.79	11.84		
802				54.23	60.70	11.87	11.75		
803				55.85	60.69	11.72	11.76		
804				57.57	62.83	11.89	11.94		
811				60.68	60.28	11.89	11.88		
812				61.12	58.23	11.77	11.78		
813				62.08	62.25	11.94	12.01		
814				62.73	61.52	11.88	11.87		
821				56.84	59.06	12.12	11.80		
822				60.32	59.70	11.84	11.80		

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC

08809

SHIP NAME ' AR 7 HECTOR

TIME	MEDIAN AGE REPORT	MEDIAN AGE DEPART	MEDIAN LCS REPORT	MEDIAN LCS DEPART	MEDIAN AFQT REPORT	MEDIAN AFQT DEPART	MEDIAN EDUCATION REPORT	MEDIAN EDUCATION DEPART
801	20.79	22.50	1.88	2.75	55.00	59.00	12.00	12.00
802	21.58	22.58	2.83	2.83	52.00	60.00	12.00	12.00
803	22.33	22.33	3.38	3.38	56.00	61.00	12.00	12.00
804	21.67	24.13	2.67	3.83	54.50	58.50	12.00	12.00
811	21.58	23.38	2.25	3.83	58.00	56.00	12.00	12.00
812	21.92	23.92	1.33	4.00	54.00	59.00	12.00	12.00
813	22.67	23.56	1.96	3.79	55.00	58.00	12.00	12.00
814	21.54	23.50	3.75	4.33	46.00	58.00	12.00	12.00
821	24.50	24.17	2.58	4.33	50.00	57.00	12.00	12.00
822	23.42	23.83						

TIME	MEAN AGE REPORT	MEAN AGE DEPART	MEAN LUS REPORT	MEAN LUS DEPART	MEAN AFQT REPORT	MEAN AFQT DEPART	MEAN EDUCATION REPORT	MEAN EDUCATION DEPART
801	21.91	24.21	2.80	4.55	56.13	58.59	11.71	11.90
802	22.63	24.57	3.47	4.86	54.59	58.94	11.52	11.83
803	23.72	24.37	3.67	4.58	56.03	56.85	11.81	12.02
804	23.82	25.61	4.43	5.43	56.73	61.25	11.56	11.93
811	23.19	25.21	3.53	4.85	60.80	55.25	11.64	11.88
812	23.15	24.83	3.70	4.91	56.60	58.69	11.79	11.73
813	23.54	24.60	3.37	4.30	51.58	58.17	11.87	12.04
814	23.28	25.16	4.15	5.54	47.78	57.65	12.23	11.96
821	25.38	26.16	4.92	5.59	49.52	58.99	12.16	11.87
822	24.94	25.44						

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	20012	SHIP NAME	LSO	PORTLAND
TIME	MEDIAN AGE	MEDIAN LOS	MEDIAN AFQT	MEDIAN EDUCATION
801	REPORT 22.475	REPORT 1.113	REPORT 58.00	REPORT 12.00
802	DEPART 22.08	DEPART 2.17	DEPART 54.00	DEPART 12.00
803	20.58	3.21	49.00	12.00
804	21.29	2.25	60.00	12.00
811	21.08	2.08	61.00	12.00
812	21.58	4.33	55.00	12.00
813	22.63	2.83	60.00	12.00
814	23.00	3.25	50.00	12.00
821	23.08	4.92	53.50	12.00
822	22.92	3.50	56.00	12.00

UIC	20012	SHIP NAME	LSO	PORTLAND
TIME	MEAN AGE	MEAN LOS	MEAN AFQT	MEAN EDUCATION
801	REPORT 24.04	REPORT 4.08	REPORT 54.60	REPORT 11.37
802	DEPART 23.37	DEPART 3.48	DEPART 54.85	DEPART 11.81
803	23.43	4.14	50.46	11.82
804	23.20	3.00	63.31	11.93
811	22.30	3.13	55.89	11.72
812	22.99	5.48	55.44	11.90
813	24.44	4.47	57.85	11.83
814	24.55	5.07	61.38	11.69
821	24.86	5.33	58.51	11.91
822	24.39	4.71	50.94	11.62
	23.16	5.28	54.06	11.44

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	20050	SHIP NAME	PT	1079	BOWEN				MEDIAN	AFQT	EDUCATION
TIME						MEDIAN	REPORT	DEPART	REPORT	DEPART	DEPART
801	21.71	23.33	1.13	3.83	53.00	61.00	12.00	12.00	12.00	12.00	12.00
802	20.92	23.88	1.67	3.04	56.00	55.50	12.00	12.00	12.00	12.00	12.00
803	23.04	23.17	2.96	3.08	62.00	67.00	12.00	12.00	12.00	12.00	12.00
804	21.21	23.43	1.38	2.75	64.50	58.00	12.00	12.00	12.00	12.00	12.00
811	21.00	22.33	1.33	2.79	60.00	69.00	12.00	12.00	12.00	12.00	12.00
812	23.71	24.25	3.04	5.25	60.50	64.00	12.00	12.00	12.00	12.00	12.00
813	20.63	22.42	0.96	2.75	65.50	69.00	12.00	12.00	12.00	12.00	12.00
814	21.17	22.83	1.42	2.79	62.00	56.00	12.00	12.00	12.00	12.00	12.00
821	21.17	22.08	1.29	2.42	55.50	69.00	12.00	12.00	12.00	12.00	12.00
822	21.96	23.83	3.17	4.17	58.00	62.00	12.00	12.00	12.00	12.00	12.00
TIME						MEDIAN	REPORT	DEPART	REPORT	DEPART	DEPART
801	21.37	24.36	1.99	4.98	56.21	60.76	11.36	11.36	11.36	11.36	11.36
802	22.97	23.52	3.63	3.93	59.47	56.58	11.60	11.60	11.60	11.60	11.60
803	24.70	24.81	4.77	4.56	57.36	65.12	11.61	11.61	11.61	11.61	11.61
804	23.07	25.24	3.25	5.87	60.11	57.79	11.57	11.57	11.57	11.57	11.57
811	23.15	23.50	3.49	3.54	60.36	67.42	11.97	11.97	11.97	11.97	11.97
812	24.73	25.81	3.91	6.18	61.00	60.12	12.04	12.04	12.04	12.04	12.04
813	21.51	24.14	1.83	3.84	66.35	68.81	11.86	11.86	11.86	11.86	11.86
814	24.18	23.84	3.73	4.20	59.90	57.55	11.88	11.88	11.88	11.88	11.88
821	24.15	23.62	2.82	3.53	55.92	65.09	11.88	11.88	11.88	11.88	11.88
822	23.69	25.45	4.33	5.54	56.42	60.40	12.00	12.00	12.00	12.00	12.00

TIME	UIC	20058	SHIP NAME	FF 1087 KIRK	MEDIAN AFQT REPORT	MEDIAN DEPT	MEDIAN LOS DEPT	MEDIAN AGE DEPT	MEDIAN REPORT	MEDIAN REPORT	EDUCATION DEPART
8001		21.96	3.50	56.50	62.00				12.00	12.00	12.00
8003		20.67	3.25	55.00	61.00				12.00	12.00	12.00
8004		21.96	3.83	71.00	66.00				12.00	12.00	12.00
8112		20.67	3.33	55.00	61.00				12.00	12.00	12.00
8113		21.83	3.38	49.50	60.50				12.00	12.00	12.00
8134		25.17	3.17	53.00	58.00				12.00	12.00	12.00
8121		21.15	4.25	53.00	57.50				12.00	12.00	12.00
8212		21.25	3.50	54.00	54.50				12.00	12.00	12.00
8222		21.25	3.42	55.00	69.00				12.00	12.00	12.00

137

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	20112	SHIP NAME	AE	29	MOUNT	HOOD			
TIME	MEDIAN AGE	MEDIAN LOS	MEDIAN AFQT	MEDIAN REPORT	EDUCATION	DEPART			
801	21.17	2.17	48.00	12.00	12.00	12.00			
802	20.88	1.00	53.00	12.00	12.00	12.00			
803	21.58	2.83	54.00	12.00	12.00	12.00			
804	21.83	2.13	56.00	12.00	12.00	12.00			
811	21.67	1.83	53.00	12.00	12.00	12.00			
812	22.50	1.92	54.00	12.00	12.00	12.00			
813	22.08	1.83	56.00	12.00	12.00	12.00			
814	22.83	0.92	50.00	12.00	12.00	12.00			
821	22.79	0.83	50.00	12.00	12.00	12.00			
822	23.21	0.75	49.00	12.00	12.00	12.00			
	19.83								
TIME	MEAN AGE	MEAN LOS	MEAN AFQT	MEAN REPORT	MEAN EDUCATION	DEPART			
801	23.00	3.42	50.06	11.83	11.77	11.76			
802	23.34	3.76	53.52	11.68	11.68	11.89			
803	23.97	4.52	54.19	11.78	11.78	11.63			
804	23.42	3.30	56.26	11.69	11.69	11.76			
811	23.01	3.32	53.63	11.59	11.59	11.79			
812	23.82	4.18	53.90	11.62	11.62	11.87			
813	23.91	4.37	50.87	11.81	11.81	11.69			
814	24.38	4.82	51.02	11.88	11.88	12.07			
821	23.38	3.64	49.72	11.76	11.76	11.96			
822	21.93	2.14							

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	20123	SHIP NAME	AOR	4	SAVANNAH	
TIME	801	MEDIAN AGE	REPORT	MEDIAN LOS	MEDIAN AFQT	MEDIAN EDUCATION
802	21.13	DEPART	0.83	REPORT	55.00	REPORT
803	20.92	22.54	0.92	DEPART	54.00	12.00
804	19.92	22.00	1.00	2.58	58.00	12.00
811	23.58	22.50	2.00	3.00	55.50	12.00
812	20.50	22.75	1.33	2.42	56.00	12.00
813	21.71	22.67	1.88	3.58	56.00	12.00
814	21.08	22.00	1.00	2.67	63.00	12.00
821	20.42	22.92	1.17	3.25	54.00	12.00
822	20.75	22.58	0.83	3.04	58.50	12.00
	20.08	22.75	0.92	3.25	60.00	12.00
					63.00	12.00

UIC	20123	SHIP NAME	AOR	4	SAVANNAH	
TIME	801	MEAN AGE	REPORT	MEAN LOS	MEAN AFQT	MEAN EDUCATION
802	22.27	DEPART	2.71	REPORT	57.69	REPORT
803	21.79	24.49	1.79	DEPART	53.69	11.67
804	21.23	22.21	1.35	2.52	50.23	11.65
811	26.46	23.04	2.35	3.54	58.21	11.87
812	24.89	23.84	2.14	4.61	55.93	11.84
813	24.25	24.45	4.03	4.49	61.07	11.80
814	22.87	23.06	4.57	4.03	55.09	11.69
821	23.71	24.59	2.57	4.52	55.07	11.92
822	23.29	23.72	2.77	5.35	59.66	11.74
	21.26	23.93	1.98	4.35	58.78	11.69



# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC

20143

SHIP NAME

ASR 21 PIGEON

TIME	MEDIAN AGE		MEDIAN LOS		MEDIAN AFQT		MEDIAN EDUCATION	
	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	22.17	25.50	2.08	4.75	52.50	78.00	12.00	12.00
802	21.00	24.50	2.38	4.25	48.50	60.00	12.00	12.00
803	21.25	24.00	3.33	4.33	55.00	70.00	12.00	12.00
804	21.75	24.00	2.00	4.17	60.00	71.00	12.00	12.00
811	22.00	24.75	2.58	4.58	58.00	64.50	12.00	12.00
812	26.25	24.92	3.92	4.71	48.00	58.00	12.00	12.00
813	21.33	23.50	2.08	4.25	47.00	54.00	12.00	12.00
814	23.04	22.54	2.42	4.13	57.00	56.00	12.00	12.00
821	20.58	22.75	2.04	4.29	74.00	65.00	12.00	12.00
822	22.25	22.71	2.08	3.33	46.50	55.50	12.00	12.00

TIME	MEAN AGE		MEAN LOS		MEAN AFQT		MEAN EDUCATION	
	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART	REPORT	DEPART
801	22.84	25.88	3.72	6.05	54.31	65.30	11.50	11.74
802	21.88	26.69	2.91	6.82	49.58	57.34	11.67	11.66
803	26.10	24.94	6.44	5.84	53.65	68.84	12.06	11.81
804	24.49	25.71	4.22	5.83	57.82	67.81	12.12	12.00
811	24.88	26.13	4.18	6.45	52.95	59.00	11.74	12.05
812	26.42	26.55	5.63	6.44	50.52	60.50	12.00	11.79
813	24.37	26.04	4.84	6.25	49.40	54.64	11.47	11.77
814	25.84	26.61	5.38	6.61	51.64	57.68	11.77	11.76
821	23.39	26.57	3.94	5.28	64.94	62.19	11.94	12.25
822	23.05	24.52	3.16	4.52	52.59	58.80	12.23	11.85

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	20223	SHIP NAME	1197	BARNSTABLE	CITY
TIME					
801	20.42	MEDIAN AGE	REPORT	22.25	DEPART
802	20.58	22.38	22.38	22.38	22.38
803	20.17	23.00	23.00	23.00	23.00
804	20.08	22.35	22.35	22.35	22.35
811	20.25	23.33	23.33	23.33	23.33
812	21.00	21.88	21.88	21.88	21.88
813	21.92	22.00	22.00	22.00	22.00
814	21.00	22.63	22.63	22.63	22.63
821	19.92	24.00	24.00	24.00	24.00
822					
		MEDIAN LOS	REPORT	0.83	DEPART
		0.83	0.83	0.83	0.83
		1.08	1.08	1.08	1.08
		0.75	0.75	0.75	0.75
		0.08	0.08	0.08	0.08
		0.79	0.79	0.79	0.79
		2.63	2.63	2.63	2.63
		1.00	1.00	1.00	1.00
		1.67	1.67	1.67	1.67
		0.83	0.83	0.83	0.83
		0.92	0.92	0.92	0.92
		MEDIAN AFQT	REPORT	47.50	DEPART
		47.50	47.50	47.50	47.50
		55.00	55.00	55.00	55.00
		55.00	55.00	55.00	55.00
		52.00	52.00	52.00	52.00
		50.00	50.00	50.00	50.00
		52.00	52.00	52.00	52.00
		58.00	58.00	58.00	58.00
		51.00	51.00	51.00	51.00
		49.00	49.00	49.00	49.00
		MEDIAN EDUCATION	REPORT	12.00	DEPART
		12.00	12.00	12.00	12.00
		12.00	12.00	12.00	12.00
		12.00	12.00	12.00	12.00
		12.00	12.00	12.00	12.00
		12.00	12.00	12.00	12.00
		12.00	12.00	12.00	12.00
		12.00	12.00	12.00	12.00
		12.00	12.00	12.00	12.00

UIC	20223	SHIP NAME	1197	BARNSTABLE	CITY
TIME					
801	21.90	MEDIAN AGE	REPORT	23.00	DEPART
802	21.75	23.85	23.85	23.85	23.85
803	22.01	25.11	25.11	25.11	25.11
804	22.92	25.78	25.78	25.78	25.78
811	22.87	25.40	25.40	25.40	25.40
812	22.70	24.26	24.26	24.26	24.26
813	22.80	23.88	23.88	23.88	23.88
814	22.81	23.54	23.54	23.54	23.54
821	22.97	24.45	24.45	24.45	24.45
822	22.23	24.94	24.94	24.94	24.94
		MEDIAN LOS	REPORT	2.43	DEPART
		2.43	2.43	2.43	2.43
		2.50	2.50	2.50	2.50
		2.51	2.51	2.51	2.51
		3.31	3.31	3.31	3.31
		3.49	3.49	3.49	3.49
		2.88	2.88	2.88	2.88
		2.28	2.28	2.28	2.28
		2.35	2.35	2.35	2.35
		MEDIAN AFQT	REPORT	49.70	DEPART
		49.70	49.70	49.70	49.70
		58.11	58.11	58.11	58.11
		55.59	55.59	55.59	55.59
		57.18	57.18	57.18	57.18
		45.30	45.30	45.30	45.30
		56.72	56.72	56.72	56.72
		52.64	52.64	52.64	52.64
		52.19	52.19	52.19	52.19
		47.66	47.66	47.66	47.66
		MEDIAN EDUCATION	REPORT	11.65	DEPART
		11.65	11.65	11.65	11.65
		11.56	11.56	11.56	11.56
		11.26	11.26	11.26	11.26
		11.36	11.36	11.36	11.36
		11.65	11.65	11.65	11.65
		11.68	11.68	11.68	11.68
		11.94	11.94	11.94	11.94
		11.65	11.65	11.65	11.65
		11.66	11.66	11.66	11.66

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	20576	SHIP NAME	DD 965 KINKAID	MEDIAN AGE REPORT	MEDIAN LUS REPORT	MEDIAN AFQT REPORT	MEDIAN EDUCATION REPORT
TIME	801	20.38	1.75	3.50	56.00	61.00	12.00
802	21.75	2.08	2.50	60.00	59.00	12.00	
803	22.50	1.58	3.25	59.00	61.00	12.00	
804	21.42	1.33	3.13	67.00	62.00	12.00	
811	22.08	2.79	2.50	56.00	66.50	12.00	
812	23.54	1.92	4.08	61.50	60.00	12.00	
813	22.50	1.46	3.29	55.50	65.00	12.00	
814	21.58	2.08	4.17	58.00	58.50	12.00	
821	20.83	0.75	3.63	50.00	64.50	12.00	
822	21.67	1.92	3.58	56.00	60.00	12.00	

UIC	20576	SHIP NAME	DD 965 KINKAID	MEDIAN AGE REPORT	MEDIAN LUS REPORT	MEDIAN AFQT REPORT	MEDIAN EDUCATION REPORT
TIME	801	21.60	3.32	3.99	62.52	61.59	11.62
802	22.48	2.95	4.80	61.38	57.09	11.79	12.12
803	23.74	3.09	4.89	58.54	62.64	12.00	11.74
804	21.82	2.12	3.82	55.56	60.90	11.72	12.08
811	23.86	3.57	3.99	59.76	64.60	11.97	12.05
812	23.76	4.11	5.19	59.06	59.42	11.86	11.68
813	25.21	5.13	4.60	50.27	62.09	12.05	12.28
814	23.53	3.55	5.57	61.61	62.75	11.81	11.93
821	23.25	3.26	5.28	50.51	61.57	12.00	11.98
822	25.07	4.68	5.09	54.30	60.96	11.61	11.98

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	20632	SHIP NAME	LHA 2 SAIPAN						
TIME	MEDIAN AGE REPORT DEPART	MEDIAN LOS REPORT DEPART	MEDIAN AFQT REPORT DEPART	MEDIAN REPORT DEPART	EDUCATION DEPART				
801	20.42	0.88	55.00	12.00	12.00				
802	20.29	0.92	53.00	12.00	12.00				
803	21.07	1.71	57.00	12.00	12.00				
804	21.67	1.50	56.00	12.00	12.00				
811	21.00	1.33	60.00	12.00	12.00				
812	21.08	1.75	58.00	12.00	12.00				
813	22.08	1.38	53.00	12.00	12.00				
814	22.46	1.50	56.00	12.00	12.00				
821	21.38	1.08	52.50	12.00	12.00				
822	21.58	1.08	54.00	12.00	12.00				
TIME	MEAN AGE REPORT DEPART	MEAN LOS REPORT DEPART	MEAN AFQT REPORT DEPART	MEAN REPORT DEPART	MEAN EDUCATION DEPART				
801	21.76	2.51	55.30	11.90	11.68				
802	22.37	2.66	55.43	11.98	11.61				
803	22.65	2.92	59.09	11.69	11.77				
804	22.73	3.16	59.73	11.55	11.80				
811	22.46	2.85	59.81	11.84	11.96				
812	23.60	3.60	61.24	11.98	12.07				
813	24.02	3.93	60.93	11.95	12.83				
814	24.73	4.93	66.51	11.84	11.87				
821	23.51	3.88	61.02	11.58	11.80				
822	23.46	3.61	61.70	11.82	11.80				

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	20642	SHIP NAME	SSN	687	RICHARD	RUSSELL
TIME						
801	21.50	MEDIAN AGE	REPORT	23.63	MEDIAN LCS	REPORT
802	20.50	DEPART	23.67	DEPART	3.96	DEPART
803	22.58	21.79	22.67	3.33	3.96	12.00
804	21.17	23.00	21.79	3.04	3.96	12.00
811	22.42	23.58	23.00	4.58	3.96	12.00
812	22.92	25.00	4.58	5.17	3.96	12.00
813	22.50	22.75	5.17	2.67	3.96	12.00
814	23.50	25.42	2.67	6.33	3.96	12.00
821	22.83	24.21	6.33	5.42	3.96	12.00
822			5.42	4.63	3.96	12.00

TIME	REPORT	DEPART	AFQT	REPORT	DEPART	EDUCATION
801	68.87	69.83	68.00	12.00	12.29	12.00
802	70.69	64.47	73.00	12.00	11.84	12.00
803	70.65	68.49	73.00	12.00	11.85	12.00
804	67.60	76.89	75.00	12.07	12.16	12.00
811	73.43	76.52	79.00	11.79	12.76	12.00
812	76.33	70.50	73.00	12.00	12.08	12.00
813	75.50	65.48	60.00	12.25	11.62	12.00
814	64.26	72.50	75.00	11.95	12.21	12.00
821	75.44	75.45	81.50	12.11	12.32	12.00
822	75.00	66.21	69.00	12.38	11.94	12.00

UIC	52198	SHIP NAME	DD 938 JONAS	INGRAM
-----	-------	-----------	--------------	--------

TIME	MEDIAN AGE	MEDIAN LCS	MEDIAN AFQT	EDUCATION
REPORT	DEPT	REPORT	DEPT	REPORT
801	23.67	3.79	62.00	12.00
802	24.42	4.25	69.00	12.00
803	22.58	3.17	70.00	12.00
804	22.58	3.33	58.00	12.00
811	22.92	3.00	54.00	12.00
812	22.63	3.21	58.00	12.00
813	23.08	4.29	66.00	12.00
814	22.67	3.13	64.00	12.00
821	22.92	3.50	58.00	12.00
822	23.58	3.92	65.00	12.00

TIME	MEAN REPORT	AGE DEPART	MEAN REPORT	LOS DEPART	MEAN REPORT	AFQT DEPART	MEAN REPORT	MEAN REPORT	EDUCATION DEPART
801	23.07	24.20	3.52	4.98	58.16	60.10	12.08	11.82	11
802	22.34	25.77	2.82	6.43	61.75	65.23	11.64	11.85	11
803	24.19	24.78	4.50	5.13	61.06	67.33	11.62	11.73	11
804	24.89	24.39	5.09	4.47	51.88	57.36	11.85	11.63	11
811	23.32	24.01	3.24	4.38	58.20	58.50	11.69	12.02	12
812	23.82	23.39	3.83	3.88	63.34	61.65	11.59	11.75	11
813	23.33	25.16	3.33	5.78	50.93	59.55	11.64	11.97	11
814	23.33	25.39	3.92	5.04	53.40	62.47	12.03	11.97	11
821	23.37	25.21	3.54	4.86	56.39	57.67	11.55	11.66	11
822	23.44	25.12	3.46	5.42	56.35	62.06	11.75	11.66	11

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	52234	SHIP NAME	DDG 40	COONTZ				
TIME	MEDIAN AGE	MEDIAN LOS	MEDIAN AFQT	MEDIAN EDUCATION	REPORT	DEPART	REPORT	DEPART
801	20.92	1.79	58.50	12.00	12.00	12.00	12.00	12.00
802	20.88	1.17	63.00	12.00	12.00	12.00	12.00	12.00
803	20.96	1.54	56.50	12.00	12.00	12.00	12.00	12.00
804	21.00	1.67	54.00	12.00	12.00	12.00	12.00	12.00
811	22.00	0.83	59.00	12.00	12.00	12.00	12.00	12.00
812	22.08	2.00	58.00	12.00	12.00	12.00	12.00	12.00
813	22.08	1.67	58.50	12.00	12.00	12.00	12.00	12.00
814	22.33	1.33	63.00	12.00	12.00	12.00	12.00	12.00
821	21.17	1.17	49.00	12.00	12.00	12.00	12.00	12.00
822	22.75	2.75	58.00	12.00	12.00	12.00	12.00	12.00
TIME	MEAN AGE	MEAN LOS	MEAN AFQT	MEAN EDUCATION	REPORT	DEPART	REPORT	DEPART
801	23.40	3.48	56.34	11.86	11.86	11.86	11.86	11.86
802	22.08	3.10	64.62	11.76	11.76	11.76	11.76	11.76
803	22.77	3.61	58.70	11.45	11.45	11.45	11.45	11.45
804	23.05	3.31	55.94	11.60	11.60	11.60	11.60	11.60
811	23.12	2.47	53.90	12.00	12.00	12.00	12.00	12.00
812	24.40	4.13	58.61	11.86	11.86	11.86	11.86	11.86
813	24.15	4.39	62.76	11.76	11.76	11.76	11.76	11.76
814	23.59	3.20	58.21	11.94	11.94	11.94	11.94	11.94
821	23.52	3.27	60.17	11.72	11.72	11.72	11.72	11.72
822	25.46	4.83	48.16	11.74	11.74	11.74	11.74	11.74

SHIP NAME DDG 46 PREBLE

TIME	MEDIAN AGE	MEDIAN LOS	MEDIAN AFQT	MEDIAN REPORT	EDUCATION DEPART
801	22.00	2.25	60.00	12.00	12.00
802	21.63	3.17	64.50	12.00	12.00
803	23.15	3.17	56.00	12.00	12.00
804	21.50	4.08	57.00	12.00	12.00
811	22.50	3.50	55.00	12.00	12.00
812	20.38	3.50	70.00	12.00	12.00
813	22.92	3.50	56.00	12.00	12.00
814	22.50	3.25	62.00	12.00	12.00
821	21.17	4.75	55.00	12.00	12.00
822	20.50	3.33	67.00	12.00	12.00

TIME	MEAN REPORT	AGE DEPART	MEAN REPORT	LOS DEPART	MEAN REPORT	AFQT DEPART	MEAN REPORT	EDUCATION DEPART
801	23.39	23.28	3.11	4.09	61.53	60.11	12.11	11.62
802	23.63	24.76	4.17	5.17	59.52	60.30	11.91	11.85
803	24.72	24.81	4.87	4.87	49.92	57.37	11.64	11.89
804	23.15	25.77	3.75	6.27	56.34	56.81	11.68	11.98
811	24.83	24.36	5.50	4.78	66.69	57.81	11.97	12.02
812	21.74	24.17	2.28	4.59	58.26	55.56	11.66	11.94
813	22.94	23.60	2.71	4.27	59.15	56.24	11.76	11.76
814	22.12	24.55	4.72	5.02	62.76	62.40	12.12	11.83
821	22.52	24.10	2.81	5.22	51.87	60.16	11.87	11.93
822	23.52	25.22	3.87	5.42	54.32	67.34	12.00	11.90



# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	52699	SHIP NAME	CG 24 REEVES	MEDIAN AGE REPORT DEPART	MEDIAN LOS REPORT DEPART	MEDIAN AFQT REPORT DEPART	MEDIAN EDUCATION REPORT DEPART
TIME							
801	22.42	3.13	58.00	2.67	3.13	59.50	12.00
802	22.71	2.96	49.50	1.13	2.96	61.00	12.00
803	20.96	3.71	64.00	1.00	3.71	63.00	12.00
804	22.83	3.33	58.00	2.92	3.33	60.00	12.00
811	20.50	3.25	54.00	0.83	3.25	60.00	12.00
812	20.83	2.96	65.00	1.71	2.96	64.50	12.00
813	22.38	3.50	63.00	2.04	3.50	70.00	12.00
814	23.13	3.75	60.00	2.25	3.75	64.50	12.00
821	20.33	3.79	44.00	1.00	3.79	64.50	12.00
822	22.33	4.33	56.00	3.08	4.33	56.00	12.00

UIC	52699	SHIP NAME	CG 24 REEVES	MEDIAN AGE REPORT DEPART	MEDIAN LOS REPORT DEPART	MEDIAN AFQT REPORT DEPART	MEDIAN EDUCATION REPORT DEPART
TIME							
801	24.41	5.65	56.96	4.75	5.65	63.00	11.76
802	22.23	4.35	52.21	2.71	4.35	61.38	11.69
803	22.75	5.64	64.71	2.64	5.64	60.71	11.73
804	25.28	5.27	58.32	5.63	5.27	60.06	11.92
811	22.03	4.09	53.00	3.41	4.09	61.97	11.32
812	22.87	3.92	63.07	3.69	3.92	64.02	11.89
813	24.40	4.25	56.19	4.47	4.25	67.02	11.82
814	23.33	4.98	62.29	3.75	4.98	63.32	11.93
821	22.41	5.41	48.63	3.75	5.41	63.50	11.87
822	23.07	5.97	55.82	3.78	5.97	57.88	11.92

CGN 25 BAINBRIDGE

TIME	MEDIAN AGE REPORT	MEDIAN AGE DEPART	MEDIAN LOS REPORT	MEDIAN LOS DEPART	MEDIAN AFQT REPORT	MEDIAN AFQT DEPART	MEJIAN REPORT	MEJIAN DEPART	EDUCATION DEPART
801	22.75	24.00	3.17	4.25	70.00	71.00	12.00	12.00	12.00
802	22.21	23.21	2.58	3.96	66.00	67.50	12.00	12.00	12.00
803	21.50	23.52	2.17	3.25	72.50	69.00	12.00	12.00	12.00
804	22.25	23.52	2.83	4.00	71.00	65.00	12.00	12.00	12.00
811	21.83	23.58	2.17	4.29	62.00	65.00	12.00	12.00	12.00
812	22.25	23.00	2.83	3.83	73.00	69.00	12.00	12.00	12.00
813	21.92	23.83	1.92	3.67	67.00	65.00	12.00	12.00	12.00
814	22.67	23.67	2.50	4.21	65.50	67.50	12.00	12.00	12.00
821	22.25	23.17	2.50	4.17	59.00	65.00	12.00	12.00	12.00
822	21.83	23.92	2.00	4.08	62.00	67.00	12.00	12.00	12.00

TIME	MEAN REPORT	AGE DEPART	MEAN REPORT	LOS DEPART	MEAN REPORT	AFQT DEPART	MEAN REPORT	EDUCATION DEPART
801	24.11	24.52	5.08	4.63	65.24	11.39	12.13	
802	23.96	24.17	4.35	4.70	64.84	12.09	12.17	
803	23.51	25.03	3.48	5.03	66.80	11.98	11.84	
804	23.76	25.70	4.18	6.06	63.46	11.84	11.90	
811	22.90	25.04	2.53	4.95	62.59	12.03	11.96	
812	24.03	25.27	4.35	5.42	66.95	12.12	11.75	
813	22.69	25.19	3.23	4.89	63.26	12.11	11.95	
814	24.93	24.59	4.25	4.92	67.31	12.09	11.93	
821	23.68	24.30	4.41	4.75	64.11	11.90	12.11	
822	23.50	25.17	3.48	5.12	61.94	11.91	12.11	

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

TIME	UIC	54057	SHIP NAME FF 1062 WHIPPLE				MEDIAN AFQT		EDUCATION
			MEDIAN	LOS	REPORT	DEPART	REPORT	DEPART	
8001			24.25	22.33	2.79	3.58	52.00	65.00	12.00
8002			20.75	22.92	1.25	3.08	57.50	63.00	12.00
8003			20.08	21.83	1.25	2.83	58.00	60.00	12.00
8004			21.08	23.83	2.17	4.00	64.00	55.00	12.00
8011			21.83	22.46	2.08	3.04	60.00	56.00	12.00
8012			21.46	22.42	1.67	3.67	53.00	65.00	12.00
8013			23.33	23.75	3.08	4.33	56.50	70.00	12.00
8014			20.96	23.46	0.92	3.46	64.00	58.00	12.00
8021			21.63	23.58	1.79	4.50	58.00	60.00	12.00
8022									
TIME							MEAN AFQT		EDUCATION
			MEAN	AGE	REPORT	DEPART	REPORT	DEPART	
8001			25.48	24.27	5.21	5.39	50.70	64.82	11.64
8002			22.72	24.63	3.28	4.71	58.18	61.72	11.89
8003			21.71	23.40	3.05	3.89	58.36	60.47	11.86
8004			24.39	25.79	4.37	5.33	60.65	55.69	11.98
8011			23.98	24.33	3.41	4.61	60.96	56.62	11.91
8012			23.98	25.71	3.97	4.61	58.67	61.27	11.67
8013			24.30	25.26	4.12	5.32	51.00	61.65	12.00
8014			22.94	25.17	5.08	5.13	58.38	66.28	11.88
8021			22.46	25.06	2.59	5.57	58.55	59.88	11.75
8022			23.48	26.20	3.91	6.26	53.55	57.85	11.84

# COMPARATIVE STATISTICS OF PERSONNEL INVOLVED IN TURNOVER

UIC	54064	SHIP NAME	FF 1069 BAGLEY				
TIME	MEDIAN AGE	MEDIAN LOS	MEDIAN AFQT	MEDIAN EDUCATION			
801	REPORT 22.38	REPORT 3.17	REPORT 58.00	REPORT 12.00	REPORT 12.00	REPORT 12.00	REPORT 12.00
802	DEPART 22.67	DEPART 3.42	DEPART 62.00	DEPART 12.00	DEPART 12.00	DEPART 12.00	DEPART 12.00
803	22.75	4.08	56.00	12.00	12.00	12.00	12.00
804	22.25	3.08	64.00	12.00	12.00	12.00	12.00
811	19.92	4.25	66.00	12.00	12.00	12.00	12.00
812	22.67	4.42	59.00	12.00	12.00	12.00	12.00
813	23.67	4.21	67.00	12.00	12.00	12.00	12.00
814	22.88	4.17	62.00	12.00	12.00	12.00	12.00
821	23.25	4.25	60.00	12.00	12.00	12.00	12.00
822	23.50	4.17	60.00	12.00	12.00	12.00	12.00
	24.29	4.54	69.00	12.00	12.00	12.00	12.00

TIME	MEAN AGE	MEAN LOS	MEAN AFQT	MEAN EDUCATION			
801	REPORT 24.52	REPORT 5.59	REPORT 59.45	REPORT 11.70	REPORT 11.81	REPORT 11.81	REPORT 11.81
802	DEPART 25.91	DEPART 4.59	DEPART 58.49	DEPART 11.91	DEPART 11.80	DEPART 11.80	DEPART 11.80
803	24.38	4.45	56.78	11.93	11.82	11.82	11.82
804	21.27	4.93	66.67	11.54	11.93	11.93	11.93
811	24.69	5.74	62.00	11.77	11.82	11.82	11.82
812	23.71	4.92	63.95	11.67	11.93	11.93	11.93
813	23.78	4.30	64.00	12.10	11.74	11.74	11.74
814	23.74	5.60	62.87	12.73	11.95	11.95	11.95
821	23.48	5.03	59.82	11.81	11.78	11.78	11.78
822	24.09	6.14	63.08	11.78	11.68	11.68	11.68

## BIBLIOGRAPHY

ALKOV, R.A., "Life Changes and Accident Behavior", Approach, February 1975.

Alkov, R.A., "Stress Coping and Aircraft Mishaps", Approach, September 1981.

Amendiola, J.A., "Training Management and Personnel Turbulence", Thesis, U.S. Army Command and General Staff College, June 1981.

Binkin, M. and Kyriakopoulos, I., Youth or Experience? Manning the Modern Military, The Brookings Institution, 1979.

Carlson, C.G., "A Descriptive Analysis of First Term Attrition From US Naval Ships", M.S. Thesis, Naval Postgraduate School, September 1981.

Cohen, J. and Cohen, P., Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences, Lawrence Erlbaum Associates, 1975.

Consolidated Casualty Reporting System (CASREP) Reports Catalog, October 1978.

Dixon, W.J., and Brown, M.B. (Editors), BMDP Biomedical Computer Programs P-Series, University of California Press, 1979.

Fogec, T.G., "Predicting Employee Performance", Personnel Journal, June 1976, vol 55 no 6.

Highsmith, R.C., "Proposed Measures of Effectiveness for Human Resource Availability Periods and Their Impact upon Unit Operational Readiness", M.S. Thesis, Naval Postgraduate School, December 1976.

Horowitz, S.S. and Sherman, A., "Crew Characteristics and Ship Condition (Maintenance Personnel Effectiveness Study (MEPS))", Center for Naval Analysis, Report CNS 1090, March 1977.

Kendall, V.S., "Personnel Turbulence in the Air Weapons Controller Utilization Field: Problems or Platitudes", presentation, U.S. Army Command and General Staff College, June 1978.

Kerlinger, F.N. and Pedhazur, E.J., Multiple Regression in Behavioral Research, Holt, Rinehart and Winston Inc., 1973.

Larsen, O.A., et.al., "Survey of Unit Performance Effectiveness Measures", NPRDC Report TR 74-11, January 1974.

Marcus, A.J., "Personnel Characteristics and Navy Aviation Squadron Performance: A Production Function Approach", Center for Naval Analyses, Memorandum (CNA) 82-0565.10, July 1982.

Namboodiri, N.K., Carter, L.F. and Blalock, H.M., Applied Multivariate Analysis and Experimental Designs, McGraw Hill,

SAS User's Guide 1979 Edition, SAS Institute Inc., 1979.

Swenson, T.G., "Theoretical Understanding of Recruiting Source Consequences", Ph.D. Dissertation, University of Oregon, 1982.

"The Enlisted Survival Tracking File", NPRDC Report TN 81-11, April 1981.

# INITIAL DISTRIBUTION LIST

	No. Copies
1. Defense Technical Information Center Cameron Station Alexandria, Virginia 22314	2
2. Defense Logistics Studies Information Exchange U.S. Army Logistics Management Center Fort Lee, Virginia 23801	2
3. Library, Code 0142 Naval Postgraduate School Monterey, California 93940	2
4. Department Chairman, Code 54 Department of Administrative Sciences Naval Postgraduate School Monterey, California 93940	1
5. Professor Richard S. Elster, Code 54Ea Department of Administrative Sciences Naval Postgraduate School Monterey, California 93940	10
6. Professor R. Weitzman, Dode 54wz Department of Administrative Sciences Naval Postgraduate School Monterey, California 93940	1
7. Office of the Secretary of Defense Deputy Assistant Secretary of Military Personnel Policy The Pentagon Washington, D.C. 20301	1
8. Assistant Secretary of the Navy Manpower, Reserve Affairs and Logistics The Pentagon Washington, D.C. 20350	1
9. Deputy Chief of Naval Operations (Manpower, Personnel and Training) Chief of Naval Personnel, OP-01,-11,12, -12B,-13,-135K,-15 Arlington Annex Columbia Pine and Arlington Ridge Road Arlington, Virginia 20370	1

10. Stanley A. Horowitz 1  
Director  
Manpower, Support and Readiness Program  
Center for Naval Analyses  
2000 N. Beauregard Steet  
Alexandria, Virginia 22311
11. LCDR Wayne R. Reeves 1  
107 Overcup Drive  
Lexington Park, Maryland 20653
12. Joe Silverman Code 11 1  
Navy Personnel Research and Developement Center  
San Diego, California 92152



